

熊貓保護區地震重建工作

Earthquake Rebuilding for Panda Reserves

2008年5月12日，中國西部地區發生的嚴重地震，災情舉世觸目，但較少受關注的是，災區多個自然保護區亦在地震中受損，這些保護區是碩果僅存的國寶大熊貓的棲身之所，為牠們提供了食物來源。地震發生後，我們一直與受影響保護區緊密聯繫，按需要提供電腦設備或野外裝備等資助。至今我們已籌得港幣640萬元的捐款，並已落實作重建用途。

On 12 May 2008, a devastating earthquake hit large areas of western China. The impact of this catastrophic event made headlines around the world. Less well-publicised was the destruction of numerous nature reserves that provided shelter and food for China's few remaining wild panda populations. Since the day of the earthquake, we have been working closely with these reserves to identify their needs, rebuild vital infrastructure and strengthen their fieldwork resources. Since May 2008, we have received HK\$6.4 million in donations, which was committed to rebuilding efforts.

「地震重建是一項長期的承擔。
您的支持，讓我們的工作得以
延續下去。」

“Rebuilding is a long-term
commitment. We need your
support to sustain our efforts.”

吳守堅 Timothy Ng

香港海洋公園保育基金副總監
代表海洋公園出任香港政府發展局臥龍重建工作
之榮譽技術顧問

Deputy Director of OPCFHK
who also represented Ocean Park as the Hong Kong SAR Development
Bureau's Honorary Technical Consultant for the Rebuilding of Wolong
Nature Reserve

地震重建工作

Earthquake Rebuilding Efforts

保育基金的地震重建工作範圍廣泛，針對災區在日常運作及科研項目方面的需要，提供器材贊助、生境恢復及科研項目等的經費。

Our rebuilding work in China covers a large area and addresses a wide range of logistical, operational and scientific needs. This includes equipment sponsorship, habitat restoration, and ongoing habitat studies.

資助物資

Equipment sponsorship



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保育研究

Conservation in action



© Baishuijiang Nature Reserve

監察大熊貓生境
Monitoring panda habitats



© Mabel Chau & Jaco Tang/USSP

野生小熊猫
Wild red panda

修復大熊貓生境

Restoring panda habitats



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栽種竹樹苗
Planting bamboo seedlings



© Wang Fang

考察大熊貓棲息地
Surveying panda habitat

© Wolong Nature Reserve

資助物資

Equipment Sponsorship

本年度保育基金向甘肅及陝西省15個保護區及三個行政機關撥款，添置野外考察裝備及電腦設備，協助保護區回復正常運作。

During the year, we sponsored equipment at 15 nature reserves and three management offices in Gansu and Shaanxi Provinces. This much-needed sponsorship helped recipients purchase important field and office equipment, allowing them to resume normal operations.

受資助保護區

甘肅省

白水江
裕河
博裕河
尖山
阿夏
多兒
插崗梁

陝西省

青木川
桑園
屋梁山
摩天嶺
牛尾河
黃柏塬
觀音山
老縣城

Supported Nature Reserves

Gansu Province

Baishuijiang
Yuhe
Boyuhe
Jianshan
Axia
Duoer
Chagangliang

Shaanxi Province

Qingmochuan
Sangyuan
Wuliangshan
Motianling
Niuweihe
Huangboyuan
Guanyinshan
Laoxiancheng



保育研究

Conservation in Action

監測大熊貓生境

在2009至2010年度，保育基金資助一項研究，了解5.12大地震對甘肅省大熊貓生境選擇的影響，研究結果將有助調整保育策略，為災後大熊貓棲地重建提供重要資料。

研究進展：

- 在四個保護區內完成了82次大熊貓樣線調查，發現大熊貓痕跡點39處。
- 主持大熊貓保護對策研討會，並對三個保護站的人員進行培訓。
- 訪問當地社群。



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Monitoring panda habitats

In 2009-2010, we supported a project to monitor the effects of the May 2008 earthquake on pandas' habitat selection in Gansu province. The results of the study will be used to refine conservation strategies and more effectively rebuild destroyed habitats.

This project achieved the following milestones:

- Completed 82 transects in four nature reserves, of which 39 were found to show traces of panda presence
- Facilitated a forum on giant panda conservation and conducted staff training at three field stations
- Interviewed local communities



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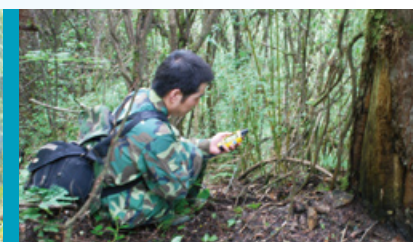
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小熊猫种群调查

保育基金根據2009年的野外考察，選點在四川省涼山州冶勒自然保護區進行這個調查。根據全國第三次大熊貓調查，冶勒保護區共有九隻野生大熊貓，以及為數不少的小熊貓種群。可是，現時尚未有該小熊貓種群的生態研究，亦未有其他大熊貓伴生動物自然歷史的資料。

小熊貓是大熊貓的伴生動物，即分享同一生境的物種，是國家二級受保護動物。

保育人員利用紅外線相機技術，配合定期樣線調查，了解保護區內小熊貓的分佈情況以及生存威脅。這個調查標誌著冶勒保護區的首次同類研究，所收集的基線資料將有助制定保育及管理計劃，有望協助四川各地的森林生境獲得更妥善的管理，令保護區內的所有物種得益。

Red panda survey

We selected this project in Liangshan Prefecture, Sichuan, following a fieldtrip to Yele Nature Reserve in 2009. According to China's third national survey, there is a population of nine wild giant pandas living in the reserve, and there is a known dense population of red panda, but no scientific studies have been conducted to understand the red pandas' ecology or other co-habitant animal species' natural history.

The red panda is an associated species of the giant panda and is currently listed as Grade II on China's Key Protected Animal List.

By using infra-red camera trapping and line transect surveys, this study aims to investigate the distribution of red pandas in the reserve and identify threats to their survival. This is the first study of its kind in this reserve, which will generate valuable baseline data for conservation and management plans. Ultimately this will result in more effective management of all Sichuan forest habitats, which will ultimately benefit all species sharing forest habitats.



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紅外線相機拍攝到同屬國家二級的紅腹角雉

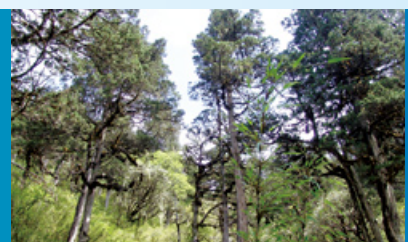
Temminck's tragopan, a Grade II protected species in China, captured by the infra-red camera



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修復大熊貓生境

Restoring Panda Habitats

修復大熊貓生態走廊

人類活動令大熊貓棲息地破碎化，引致種群分隔，基因多樣性受損。建立竹子走廊，重新串連不同的大熊貓孤立種群變得尤為重要。竹子走廊連接著被分割的棲息地，讓不同種群的大熊貓在保護區活動。這項研究透過評估秦嶺及平武兩地大熊貓種群分隔的情況，檢視生態走廊能否解決這個問題，並找出造成種群隔離的原因。

研究進展：

- 為五個自然保護區的員工提供培訓，教導學員進行樣線調查、設立相機樣點、監測及設計野外普查的技巧。
- 定期進行調查，透過紅外線相機記錄大熊貓活動情況，並已找出適當位置建立新的大熊貓生態走廊，以連接兩個大熊貓保護區。



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Restoring bamboo corridors for giant panda

Giant pandas are threatened by habitat fragmentation from human activities. To address this threat and limit the loss of panda genetic diversity, it has become necessary to link isolated populations by constructing bamboo corridors. A bamboo corridor is a habitat that allows pandas to move easily between reserves. This important study evaluated the extent of habitat fragmentation in Qinling and Pingwu, and examined whether the creation of new corridors could address these issues. In the process, it also sought to identify the key factors causing population isolation.

This study accomplished the following:

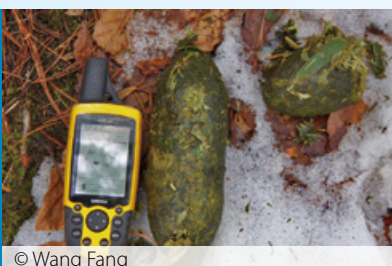
- Organised training for staff from five nature reserves, in which participants learnt techniques on panda line transects, camera trapping, monitoring, and designing field surveys
- Identified a new bamboo corridor linking two nature reserves, and implemented regular surveys with camera trapping to monitor panda activity in this area



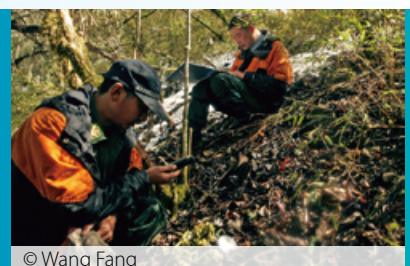
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栽種竹樹苗

2008年5月地震令520平方公里的大熊貓棲息地受損，可是竹林的自然恢復過程非常緩慢，嚴重威脅大熊貓的生存。

在2009至2010年度，保育基金向臥龍自然保護區批出撥款，在三江保護站周邊地區推行生境重建計劃，種植16萬棵竹子幼苗。該地區未有納入香港特區政府對臥龍重建的財政支援當中。

根據全國第三次大熊貓調查，該地區約有86隻野生大熊貓，2008年的大地震將大熊貓的生境分隔，亦影響了牠們的食物來源。栽種竹林的計劃將加速生態系統的復原，擴大大熊貓的生境亦可望增加大熊貓在保護區的活動範圍，有助維持區內大熊貓的基因多樣性。

當造林工作在2010至2011年度完成時，保護區的工作人員會進行定期巡查，搜集有關竹苗的生長速率及人工植林成效的資料，有助為未來的造林工作釐定對策。

Planting bamboo seedlings

During the May 2008 earthquake, some 520km² of giant panda habitats was damaged. Unfortunately, the natural recovery of bamboo forests is very slow, which leaves giant panda populations extremely vulnerable.

In 2009-2010, we approved funding to the Wolong Nature Reserve to plant 160,000 bamboo seedlings in the Sanjiang area, reconstruction of which is not included in the Hong Kong Government's extensive financial support of Wolong.

According to China's third national survey, there is a population of 86 wild giant pandas in Sanjiang. The earthquake in 2008 severely fragmented their natural habitat and limited their food source. This planting programme will accelerate recovery of the ecosystem. By enlarging the pandas' habitat, it's also hoped that the project will increase movement of giant pandas in the reserve, which will help maintain the genetic diversity of pandas in the area.

After planting has been completed in 2010-2011, staff at the reserve will monitor and patrol the sites regularly. This will provide valuable insights in the growth rate and effectiveness of artificial planting. It will also help create an effective strategy for future bamboo reforestation efforts.



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