

Oriental Bird Club Final Report

Grant No. P1337

Project title:

The Development of a Helmeted Hornbill Education Kit for Enforcement and Courts (HEKEC) in Hong Kong SAR

Summary:

This project funded by the Oriental Bird Club (OBC) allowed us to develop and provide educational materials to the Hong Kong enforcement and judiciary on the demand for the critically endangered helmeted hornbill, *Rhinoplax vigil*, highlighting the tools currently available for conservation and enforcement of *R. vigil*. With our multidisciplinary team, we developed a suite of education materials in the form of photos, a short documentary, a poster, a Species Victim Impact Statement (SVIS) and a presentation about *R. vigil* and our work on the species to members the Agriculture, Fisheries and Conservation Department (AFCD) and Department of Justice (DoJ) of Hong Kong SAR.

IUCN Helmeted Hornbill Working Group (HHWG) Objectives:

Here, we aimed to, and did partially meet, these 5 Objectives under the HHWG:

- Objective 1.2.1: *Recognise the importance of, formalise and integrate wildlife forensics into legal proceedings and policy across relevant states.*
- Objective 1.3.1: *Develop and/or disseminate identification keys for HH parts and derivatives, in local languages, for law enforcement at local, national, and international levels. Ensure HH keys are included in enforcement tools and training. High Priority.*
- Objective 1.3.2: *Develop awareness-raising materials (books, banners, presentation slides) to support enforcement agencies across relevant range and non-range states.*
- Objective 1.3.5: *Run training sessions for law enforcement officials to improve enforcement success. High Priority.*
- Objective 1.3.7: *Monitor and improve judicial response to HH poaching and illegal trade, including success of prosecutions and imposition of appropriate penalties (bigger fines, jail terms) by producing information guides on HH for judiciary, and, potentially, training / information on genetic evidence for prosecutors. High Priority.*

The Project:

The funds granted to us by OBC allowed us to develop some of the work alongside an interdisciplinary team of researchers, academics, NGOs, and filmmakers. Our Project Objective was to: *To develop a Helmeted Hornbill Education Kit for Enforcement and Courts (HEKEC).*

Specific project deliverables:

1. **Photos:** we will provide high resolution images of *R. vigil* in the wild, and of the casques for enforcement agencies to use.
2. **Video:** we will make a 2-5 min documentary using seized casques available at AFCD, as well as material filmed in Malaysia featuring the bird in the wild.
3. **Presentation:** we will develop one presentation to be delivered to enforcement members of AFCD and CED in Hong Kong.
4. **Poster:** we will develop one poster for the education center in AFCD.
5. **Species Victim Impact Statement:** develop a SVIS for *R. vigil* to provide information for the Hong Kong judiciary.

We were able to meet all 5 of these Project Deliverables, and we were successful in presenting these items to AFCD and the DoJ, fulfilling the Project Objective. Unfortunately, the CED were unable to join our workshops, but as the roles of AFCD and the DoJ are to handle the enforcement and sentencing of crimes concerning the species, we considered their participation satisfactory. We received positive feedback from AFCD through word of mouth, and in a response questionnaire (see below). However, although the questionnaire was sent out multiple times with a few reminders, only 2 AFCD officers responded via the questionnaire.

Overall, the people involved were:

HKU:

Dr Chloe Hatten (at the time of grant: HKU PhD student, now post-doctoral researcher at City U)

Dr Caroline Dingle (at the time of grant: PhD supervisor to Dr Hatten, now Honorary Senior Lecturer at HKU)

Ms Amanda Whitfort (Associate Professor, Faculty of Law, HKU)

HKBWS:

Ms Woo Ming Chuan, Deputy Director of Hong Kong Bird Watching Society

Gaia, Social Enterprise under HUTAN/KOCP (NGO):

Dr Ravinder Kaur (Lecturer at Sunway University, Malaysia)

Mr Sanjitpaal Singh (JitsPics, Malaysia)

Resh Productions:

Alex Resh (film maker)

Pavel Toropov (voluntary assistant)

Helmeted Hornbill Working Group Representative:

Mr Jack Lam (HHWG Demand Reduction Subgroup Leader)

The Materials:

The photos were taken by S. Singh (wild hornbills) and C. Hatten (seized casques).

The documentary, entitled “Fighting Wildlife Crime: the illegal trade in helmeted hornbills”, was developed and edited by A. Resh and S. Singh, production, direction, and script writing were conducted by C. Hatten and P. Toropov, narration was spoken by C. Hatten, and participants filmed included C. Dingle, A. Whitfort, M.C. Woo, and R. Kaur. The documentary was developed for a Hong Kong government audience (Chinese subtitles and references to Hong Kong) as well as an international audience (no Chinese subtitles, no reference to Hong Kong) for dissemination to HHWG collaborators. The documentary included the work from ecological field research undertaken by Gaia in Malaysia, wildlife forensic research undertaken by the School of Biological Sciences at HKU, and demand research headed by the HKBWS, conducted by members of the HHWG. This documentary was shown to AFCD members in a workshop and presented and shared at the 8th International Hornbill Conference (IHC) in Bangkok under OBC funded Project P1533.

The presentation was developed and presented by C. Hatten, M.C. Woo, and J. Lam at the AFCD workshop. Topics covered here included: the species and its threats, forensic tools available for *R. vigil*, and the SVIS. This was a successful workshop where 3 of the top leaders in the Endangered Species Protection Unit of AFCD were present. We had fruitful discussions about what they considered was needed from us as researchers, what sort of information would be useful to them from our findings of hornbill demand, and what sort of forensic tests were desirable to them. They suggested that if we ever saw *R. vigil* for sale openly, to tell them immediately, and if developing forensic tests, their main priority is for identifying whether something is a CITES Appendix I species or not, as an efficient way of prioritising the enforcement of illegally traded wildlife. They therefore agreed that our forensic test for the species identification of *R. vigil* using DNA barcoding of casques was necessary and important, and thanked us for sharing this information, the publications, and information about forensic service turn-around time if needed with them. C. Hatten and C. Dingle can now be called upon if an expert witness is needed to test whether a product is made from *R. vigil* or not.

The poster was developed in collaboration with C. Hatten and HKBWS and was presented to the AFCD to put up in their public education centre in Hong Kong. This poster was targeted at the public, and so refrained from using phrases such as “red ivory” or talking about price, or talking about rarity, as we do not want to raise demand if demand is not present. We considered this a great opportunity to share the beauty and awe of the species to inspire curiosity in the younger generation to care for wildlife outside of their borders. A PDF of this poster was also shared among participants at the IHC.

The SVIS was developed by A. Whitfort, C. Dingle, C. Hatten, and P. Toropov. A SVIS explains to lawyers and judges the harm that wildlife crime has done to individual animals, species, and ecosystems. Among other things, this document explains the impacts of the crime in trading *R. vigil* products: ecologically, socially, financially etc, to assist with sentencing. This SVIS was presented by A. Whitfort to the DoJ where she trained them how to use this document if a court case ever arose. C. Hatten then presented it also to AFCD, as they may be called upon to give more information to the court to assist in the penalty and sentencing decisions if a court case concerning *R. vigil* arises.

Material examples:

Here are examples of the materials developed below.

Photos



Image 1. Male Helmeted Hornbill (*Rhinoplax vigil*) in Malaysia, perched by a nest with a fig in its mouth. Image credit: JitsPics.



Image by: Chloe Hatten

Image 2. *R. vigil* casques seized by the Agriculture, Fisheries, Conservation Department of the Hong Kong government. Image credit: C. Hatten.

The Documentary



Images 3-8. Stills from the documentary entitled "Fighting Wildlife Crime: the illegal trade in helmeted hornbills". 3: *R. vigil* in the wild in Malaysia. 4: *R. vigil* casques seized in Hong Kong by AFCD. 5: A. Whitfort discussing wildlife crime in Hong Kong. 6: M.C. Woo discussing the work that HKBWS and the HHWG are doing to help stop the trade of *R. vigil* and investigate its demand. 7: C. Dingle presenting the forensic tests developed by C. Hatten and C. Dingle at HKU. 8: R. Kaur working with Hornbill Guardians to protect the species across their native ranges.

The Poster



Image 9. C. Hatten presenting the poster to AFCD officers in the public education centre of the AFCD offices, Hong Kong. They requested a PDF be sent to them so they could print out a larger version for this centre, this has been given to them. PDFs of the Chinese and English poster will be sent separately to OBC.

The Presentation



Image 10.

Image 11.



Images 10-11. C. Hatten, M.C. Woo, and J. Lam presenting the documentary and the presentation containing forensic tools, demand reduction monitoring, SVIS, to members of the Endangered Protection Unit of AFCD, Hong Kong, including the Director. A PDF of the presentation will be sent separately to OBC.

The SVIS

SPECIES BRIEFING DOCUMENT – Wildlife Crime Case Information

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Primary Author: Amanda S Whitfort

Details of specimens

Scientific Name	<i>Rhinoplax vigil</i>
Common Name(s)	Helmeted hornbill (English) 盔犀鳥 (Chinese)
Specimens Description e.g. live, skin, carcass	Primarily the large and solid casque (mainly the upper mandible, but sometimes the whole skull) is traded. In some cases the mandible is traded on its own. In the trade the species is known as hornbill ivory, golden jade, 鶴頂紅, or 紅象牙. It is carved into different items (rings, decorations, pendant, beads, etc.), much like ivory.
Quantity e.g. head, weight(kg)	In Mainland China, seizures of over 100 casques are made, often together with other high-value wildlife contraband such as elephant ivory, rhino horn, hawksbill turtle shell and bear and leopard claws and teeth.
Trade Value Estimate Illegal/legal trade value	US\$1,000 for a single casque (Beastall et al. 2016) In 2020 a court in Urumchi city, Xinjiang AR, valued a single casque at 8,152 yuan. Carvings made from casques were valued at 400,000 yuan by the same court.
Declared Origin of Consignment	
Declared Destination of Consignment	China, Laos, Japan

Species Global Status and Threats

Image 12. Here is an example page of the *R. vigil* Species Victim Impact Statement presented to the AFCD and the DoJ. A PDF of the SVIS will be sent separately to OBC.

Response questionnaire to AFCD

Short Questionnaire: Helmeted Hornbill (CITES App. I) Crime & Forensics

看完有關盔犀鳥貿易和保護的短片後，請回答以下問題。

After watching the short documentary on Helmeted Hornbill trade and conservation, please answer these questions below. 

OK

1. 您對該物種，其重要性，及其貿易的了解有以下哪一種的改變？

Has your understanding on the species, its importance, and its trade increased/no change/decreased?




- 了解增加 Increased
- 沒有改變 No change
- 了解減少 Decreased

2. 看過短片后，您認為您可以認出盔犀鳥產品的可能性：

Having watched the video, would you say your ability to recognise helmeted hornbill products has: 


- 增加了 Increased
- 沒改變 Remained the same
- 減少了 Decreased

3. 對於幫助打擊頭盔犀鳥非法貿易的方法，看過短片后你認為你的了解：

On the topic of methods to tackle the illegal trade of helmeted hornbills, having watched the video has your understanding: 

- 增加了 Increased
- 沒改變 Remained the same
- 減少了 Less



4. 你認為法證科學及法證檢測除了可以幫助盔犀鳥製品的執法之外，還可以幫助哪些野生動物或其製品的執法呢？例如：用基因測試鑑定魚翅物種、確定圈養/野生鳥類或爬蟲類動物的來源等。

Apart from the enforcement for helmeted hornbill products, which other wildlife or wildlife products do you think can be assisted by the use of forensic science and forensic testing? . E.g., DNA species identification of traded shark fin, origin of captive/wild birds or reptiles.. etc. 

DONE

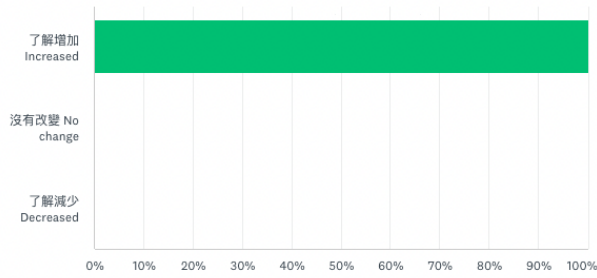
Questionnaire answers:

Q1

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您對該物種，其重要性，及其貿易的了解有以下哪一種的改變？ Has your understanding on the species, its importance, and its trade increased/no change/decreased?

Answered: 2 Skipped: 0



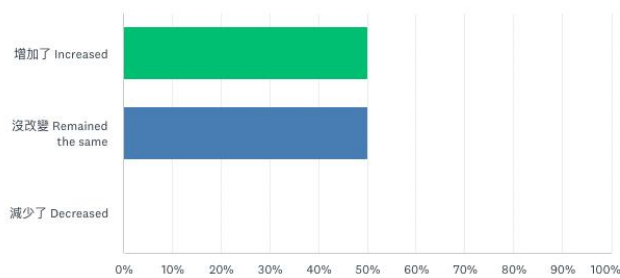
ANSWER CHOICES	RESPONSES
了解增加 Increased	100.00% 2
沒有改變 No change	0.00% 0
了解減少 Decreased	0.00% 0
TOTAL	2

Q2

 Customize  Save as

看過短片后，您認為你可以認出盔犀鳥產品的可能性: Having watched the video, would you say your ability to recognise helmeted hornbill products has:

Answered: 2 Skipped: 0



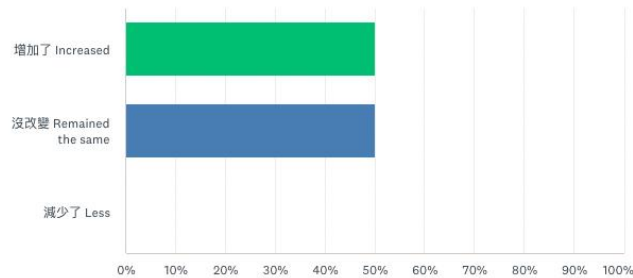
ANSWER CHOICES	RESPONSES
增加了 Increased	50.00% 1
沒改變 Remained the same	50.00% 1
減少了 Decreased	0.00% 0
TOTAL	2

Q3

Customize Save as ▼

對於幫助打擊頭盔犀鳥非法貿易的方法，看過短片后你認為你的了解： On the topic of methods to tackle the illegal trade of helmeted hornbills, having watched the video has your understanding:

Answered: 2 Skipped: 0



ANSWER CHOICES	RESPONSES
增加了 Increased	50.00% 1
沒改變 Remained the same	50.00% 1
減少了 Less	0.00% 0
TOTAL	2

Q4

Save as ▼

你認為法證科學及法證檢測除了可以幫助盔犀鳥製品的執法之外，還可以幫助哪些野生動物或其製品的執法呢？例如：用基因測試鑑定魚翅物種、確定圈養/野生鳥類或爬蟲類動物的來源等。 Apart from the enforcement for helmeted hornbill products, which other wildlife or wildlife products do you think can be assisted by the use of forensic science and forensic testing? . E.g., DNA species identification of traded shark fin, origin of captive/wild birds or reptiles.. etc.

Answered: 2 Skipped: 0

RESPONSES (2) WORD CLOUD TAGS (0) Sentiments: OFF

Search Responses Filter: by tag

Showing 2 responses

- 了解玳瑁產品的來源
5/8/2023 02:35 PM [View respondent's answers](#) [Add tags](#)
- age testing of ivory
5/4/2023 03:10 PM [View respondent's answers](#) [Add tags](#)

Unfortunately, only two officers officially responded. However, when talking with more in the workshop they were more willing to show their responses to these questions and discuss further on Q4. Respondent 1's answer: 了解玳瑁產品的來源 translates to: "Learn about the origin of tortoiseshell products".

Final Remarks:

Overall, the outputs were a great way of summarising the work that this multinational and multidisciplinary team had conducted for the helmeted hornbill, and the results were very positive. One limitation was the workshop timing and numbers of respondents. We organised the AFCD workshop well in advance (4 months) however, AFCD was not committed to our dates and postponed it regularly. As with many other teams conducting work with the government, it is common not to receive good feedback, enthusiasm, or commitment to such workshops (*pers. comms.* with other researchers and NGOs). We think that in our situation, it was likely due to the weak connection between the workshop presentation members and presenters, and the fact that the topic was on one species. If we were to re-run this workshop, we would attempt to include someone who had a stronger connection with AFCD to initiate and promote the workshop, handling communications with AFCD, and potentially include more species under a general theme e.g., “illegally traded ornamental wildlife products” to get more buy-in from more members of AFCD. The DoJ workshop was more successful as A. Whitfort has a good connection with them and runs workshops and training regularly for the DoJ. However, considering all this, we were satisfied with our overall efforts, the outcomes of the workshops, and the materials we developed in educating the Hong Kong enforcement, courts, and public (through the poster). We were also pleased that we were able to present the workshop outcomes and materials at the IHC conference in Bangkok and share the materials with others conducting similar work across the species range for *R. vigil*. We thank OBC very much for the opportunity to develop these tools and share them with these different parties to further the conservation of *R. vigil* to prevent its extinction through the illegal trade of its casque.