

A Note on Sulu Hornbill Research Project (July 2018 – June 2020) in Tawi-Tawi, Philippines

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Background

In order to study and help conserve the Sulu Hornbill *Anthracoceros montani* or *Tawsi* in local Tausug language, Dr. Pilai Poonswad and Bee Choo Strange visited Panglima Sugala, Tawi-Tawi in January 2018 together with Nicky Icarangal and Rene C. Zaballa (who helped us with aerial pictures using a drone). The site visit to the Sulu Hornbill habitat on Panglima Sugala was assisted by the former Mayor Rejie Sahali of Panglima Sugala, Colonel Romulo "Bim" Quemado, and the marine soldiers of Marine Battalion Landing Team 9 (MBLT-9) of Philippines Marine Corps. During our two-day visit to the site, we sighted a total of five Sulu Hornbills. One individual was seen leaving a potential nesting hole, most likely a cavity previously excavated by the White-bellied Woodpecker *Dryocopus javensis*. During the visit, Dr. Pilai Poonswad gave a talk at the town centre to inform the officials of the municipality, head of villages and villagers about hornbills and why they should conserve them. She agreed to help train Nicky and the rangers in Panglima Sugala on hornbill research.

Dr. Poonswad commented after visiting the site in January 2018 that there are very few potential nest trees, and trees are still being cut by the villagers in the



Fig. 1: A view of the the forests of the Sulu Hornbill.

area. She recommended the installation of artificial nestboxes. She also emphasised to the former Mayor Rejie Sahali that the approximately 10 km² site has to be protected for the survival of this species (Fig. 1).

Field training and research in 2018

We had planned to train Nicky and four Tawsi rangers in Field Techniques for Hornbill Studies in Khao Yai National Park, Thailand from 1 – 7 May 2018 (Fig. 2). However, the Tawsi rangers were not able to get their passports ready

in time and were unable to go. Nicky went and was trained by researchers and lecturers from Thailand Hornbill Project and Kasetsart University on the following aspects of hornbill research and conservation:

- Hornbill habitat evaluation and monitoring
- Hornbill population survey and monitoring; sampling techniques, occupancy, line and point transects
- Trapping of hornbills for radio and satellite tracking; measuring the hornbills, data management and analysis
- Tree climbing technique
- Nest search and nest trees study including nest cavity management
- Breeding ecology
- Hornbill food plant study including phenology study

In June 2018, Nicky Icarangal together with the Tawsi rangers discovered an active Sulu Hornbill nest on location. Hornbill Research Foundation then sent a senior hornbill researcher, Narong Jirawatkavi, to Tawi-Tawi in mid-July 2018 to train the rangers in monitoring the nest and data collection. Nicky planned to visit the nest in late July and August but was unable to go due to security issues in Tawi-Tawi. The nest was reported empty during a subsequent visit in September 2018 by one of the rangers. It is unfortunate that the monitoring of the nesting event was inconclusive due to security reasons.

Research plan and field trips in 2019

In view of uncertain security conditions in Tawi-Tawi, Bee Choo discussed with Nicky about installing camera-traps mounted near the nest tree to monitor the breeding behaviour of the hornbills during the breeding season. The breeding season of Sulu Hornbill seems



Fig. 2: Training of hornbill field researchers from Southeast Asian countries at Khao Yai National Park.

to start in April and end in July. However, at present we are unable to determine the start of female entering the nest and the date of female/fledgling leaving the nest due to difficulty accessing the location. Three Bushnell camera-traps and one set of tree climbing gear were purchased and delivered to the Philippines in early June 2019. Nicky and Colonel Bim Quemado went to Panglima Sugala in late June 2019 for six days. Two camera-traps were set up on a tree about 30 m from the nest (see picture of the male Sulu Hornbill leaving the nest hole in Fig. 3). See video of the feeding https://www.youtube.com/watch?v=zZvwUE82sXI&feature=youtu.be&ab_channel=BeeChooStrange

The Tawsi rangers found a second nest on the last day of their field trip. Nicky had no time to put up another camera-trap there and assigned two Tawsi rangers at each nest to monitor the nests every day and record information about feeding and behaviour of the male Sulu Hornbills at nests. Nicky and the Tawsi rangers have found three nest holes since 2018.

We purchased two more sets of tree-climbing gears in 2019 for the Tawsi rangers and left them in Panglima Sugala. Nicky hired two tree-climbing trainers from Manila to train the Tawsi rangers in Panglima Sugala on tree-climbing techniques in August 2019. Some of the



Fig. 3: Camera-trap picture of male Sulu Hornbill leaving nest after feeding. Note the nest cavity on the main tree trunk.

villagers joined the training as they were keen to join the research team. The team arrived on 18th August 2019. The two trainers started with basic single rope technique (SRT) training at the gymnasium of Panglima Sugala the next day. Actual outdoor tree-climbing practice was held on 23rd August 2019 at the research site. Nicky, one of the trainers and Tawsi rangers went to the nest site to retrieve the two camera-traps that were set up in June 2019 and

measured the dimensions of the nest hole. This is to ensure that the rangers and villagers can assist Nicky to check and repair nest holes and to install artificial nest boxes in 2020 – 2021.

We are grateful to Colonel Bim Quemado and MBLT-9 of the Philippines Marine Corps for continuing to assist with on-the-ground support, by providing transport vehicle and ensuring the safety of the research team (Fig. 4).

Training and research project in 2020

Nicky reported in January 2020 that the municipality of Panglima Sugala had constructed a big structure outside the town showcasing Panglima Sugala as “Home to Sulu Hornbill”. It is a good sign indeed that the government is adopting the Sulu Hornbill as an icon of the place.

The research project in Panglima Sugala has been on-hold since March 2020, and we hope to continue at the end of this year.



Fig. 4: The marines from MBLT-9 ensuring the safety of the research team.

Hornbill Research Foundation had planned to conduct a research training session on nest observations and nest searching from 27th April–4th May 2020 at Khao Yai National Park, Thailand for the Tawsi rangers. However, due to Covid-19, it has to be postponed to 2021.

Progress and future plan

The mayor and Colonel Bim Quemado are working with Philippines authorities to gazette the site as a watershed and wildlife sanctuary. The municipality currently employs sixteen Tawsi rangers from the villages near the forest to survey and safeguard the local hornbill population.

The Hornbill Research Foundation (with coordination from Bee Choo) will continue to help Nicky with his work in Panglima Sugala. There are plans to install artificial nest boxes for the Sulu Hornbill next year as there is still

on-going tree felling at the site. The villages (illegal settlers) use the wood for building. There are also plans to set up a native trees nursery near the site, and the Tawsi rangers will be recruited to plant native trees.

Acknowledgements

Bee Choo is grateful for the support by friends from Singapore, Mr. Richard Hale in 2018 and 2019 for the purchase of equipment for the field work and travel expenses of Nicky and two trainers to Tawi-Tawi; she would also like to thank Dr. Vilma D’Rozario for a last-minute support with funds to send our Thai field researcher to Tawi-Tawi in July 2018. Nicky would like to thank Mr. Tonji and Mrs. Sylvia Ramos for financing the purchase of one set of tree-climbing equipment.

We would both also like to thank the former mayor Ms. Rejie Sahali and the current mayor Mr. Nurbert Sahali, as well as Colonel Bim Quemado together with the marine soldiers of the MBLT-9 Philippines Marine Corps, for providing the ground support of Nicky’s research work in Tawi-Tawi.



Bee Choo Strange



Nicky Icarangal