

**Report: Daily Survey and Detection Records of the White-bellied Herons:  
August- December 2018 & January 2019.**



**Submitted by Mr Pema Khandu Prince**

**Of Singkla University**

**Hat Yai City 90110, Songkhla, Thailand**

**Jan 21<sup>st</sup> 2019**

**Month: August**

**Foraging Activity Patterns of the Critically Endangered White-bellied Herons (*Ardea insignis*) in Mangdechu & Punatsangchu River Basins of Bhutan**

| Week     | Day                              | Activity  | Time          | No. of WBH Spotted                            | Remarks  |
|----------|----------------------------------|---|---------------|---|--|
| I        | 1                                | Observation of foraging activity                      | 0600-0720     | 1 Juvenile                                    |  |
|          | 2                                | Went to Collect the Camera traps                      | 0600-1200     |   |  |
|          |                                  | Observation of foraging activity                      | 0200-0650     | 1 Adult                                       |  |
|          | 3                                | Set up camera traps & visit night roosting location   | 0600-1200     |   | Got fecal and feathers for DNA analysis            |
|          |                                  | Survey from Burichu to Sunkosh bridge to locate WBH   | 0130-0630     |   | No WBH sighted                                     |
|          | 4                                | Survey from Burichu to Wakleytar bridge to locate WBH | 0530-0630     |   | No WBH sighted                                     |
|          | 5                                | Survey from Wakleytar bridge to Taktsha               | 0530-0630     | 4 (1 parent)                                  | Located the new foraging ground PWDC               |
|          | 6                                | Observation of foraging activity                      | 0630-0630     | 4 (1 parent)                                  | Located their night roosting ground                |
| 7        | Observation of foraging activity | 0630-0630   | 4 (1 parent)  | Observed feeding to the weak and youngest one |  |
| 8        | Observation of foraging activity | 0730-0730   | 5 (2 parents) | 1 parent most of the time flies down stream   |  |
| II & III | 9                                | Writing report and editing manuscript                 | Whole Day     |   |  |
|          | 10                               | Observation of foraging activity                      | 0700-0600     | 8   | 6 WBH was spotted together and 2 down stream       |
|          | 11                               | Raining non-stopping                                  |               |   | Suspended observation                              |
|          | 12                               | Observation of foraging activity                      | 0600-0630     | 3   | Observed 2 WBH at new spot (WCP) and 1 at PWDC     |
|          | 13                               | Observation of foraging activity                      | 0300-0730     | 3   |  |
|          | 14                               | Survey from Burichu to Changchay                      | 0530-0230     | 0   |  |
|          | 15                               | Observation of foraging activity                      | 0700-0700     | 3   | Spotted 2 at PWDC and 1 at WCP                     |
|          | 16                               | Observation of foraging activity                      | 0748-0600     | 1   | Spotted at WCP                                     |
|          | 17                               | Prey Sampling at WCP                                  | 0400-0530     | 3   | Spotted 3 WBH at PWDC                              |
|          | 18                               | Observation of foraging activity                      | 0800-0700     | 1   | Spotted at WCP                                     |
|          | 19                               | Observation of foraging activity                      | 0400-0100     | 1   | Spotted at WCP                                     |
| 20       | Shopping of rations              |   |               |   |  |
| IV       | 21                               | Observation of foraging activity                      | 0900-0600     | 2   | Spotted 2 at PWDC and both were juveniles          |
|          | 22                               | Observation of foraging activity                      | 0700-0700     | 4   | Spotted 3 at PWDC and 1 at WCP                     |
|          | 23                               | Survey from Burichu to Taksha                         | 0700-0530     | 1   | Spotted at PWDC                                    |
|          | 24                               | Observation of foraging activity                      | 0730-0530     | 2   | Spotted 1 at PWDC and 1 at WCP                     |
|          | 25                               | Observation of foraging activity                      | 0530-0500     | 3   | Reached out to the opposite bank of the heron site |
|          | 26                               | Raining non-stopping                                  |               |   |  |
|          | 27                               | Raining non-stopping                                  |               |   |  |
|          | 28                               | Observation of foraging activity                      | 0630-1200     | 1   | Spotted at WCP                                     |
|          | 29                               | Visited market (Dampfu) for purchasing rations        |               |   |  |
|          | 30                               | Observation of foraging activity                      | 0600-0530     | 1   | Spotted at PWDC                                    |
|          | 31                               | Observation of foraging activity                      | 0600-0500     | 1   | Reached out to the opposite bank of the heron site |

**Month: September**

**Foraging Activity Patterns of the Critically Endangered White-bellied Herons (*Ardea insignis*) in Mangdechu & Punatsangchu River Basins of Bhutan**

| Week     | Day                                      | Activity  | Time      | No. of WBH Spotted | Remarks                          |
|----------|--|---|-----------|--------------------|----------------------------------|
| I        | 1  | Observation of foraging activity                                | 0600-0600 | 1                  | Spotted 2 at WCA                 |
|          | 2  | Observation of foraging activity                                | 0700-0600 | 2                  | Spotted ~300 below PWDC          |
|          | 3  | Observation of foraging activity                                | 0600-0530 | 1                  | Spotted at PWDC                  |
|          | 4  | Raining non-stopping  |           |                    |                                  |
|          | 5-8                                      | Travel to Haa to get electro fishing equipment                  |           |                    | Got the equipment                |
| II & III | 9  | Return to Burichu   |           | 2                  | Spotted at PWDC                  |
|          | 11                                       | Survey from Burichu to Taksha                                   | 0600-0530 | 0                  |                                  |
|          | 12                                       | Survey from Burichu to Taksha                                   | 0600-0530 | 0                  |                                  |
|          | 13                                       | Survey from Burichu to Taksha                                   | 0600-0530 | 0                  |                                  |
|          | 14                                       | Fish sampling at Burichu Zone 1                                 | 0730-0630 |                    |                                  |
|          | 15                                       | Fish sampling at Burichu Zone 2                                 | 0730-0631 |                    |                                  |
|          | 16                                       | Fish sampling at Lharichu                                       | 0730-0632 |                    |                                  |
|          | 17                                       | Fish sampling at Changchey Zone 1                               | 0730-0633 |                    |                                  |
|          | 18                                       | Fish sampling at Chanchey Zone 1                                | 0730-0634 |                    |                                  |
|          | 19                                       | Fish Sampling at Punatsangchu                                   | 0730-0635 |                    |                                  |
|          | 20                                       | Observation of foraging activity                                | 0600-0530 | 1                  | Spotted 1 at PWCCA2              |
|          | 21                                       | Observation of foraging activity                                | 0100-0400 | 1                  | Spotted 1 at PWCCA3              |
|          | 22                                       | Travel to Haa to return electro fishing equipment               |           |                    |                                  |
|          | 23                                       | Reached Paro  |           |                    | Office closed as today is Sunday |
| 24       | Submit the equipment                     |   |           |                    |                                  |
| 25       | Halt at Thimphu                          |   |           |                    |                                  |
| 26       | Return to Burichu and Observe on the way |   |           |                    |                                  |
| IV       | 27                                       | Literature review and making revision for the First paper draft |           |                    |                                  |
|          | 28                                       |   |           |                    |                                  |
|          | 29                                       |   |           |                    |                                  |
|          | 30                                       |   |           |                    |                                  |

**Month: October**

**Foraging Activity Patterns of the Critically Endangered White-bellied Herons (*Ardea insignis*) in Mangdechhu & Punatsangchu River Basins of Bhutan**

| Week | Day | Activity  | Time      | No. of WBH Spotted | Remarks                                   |
|------|-----|---|-----------|--------------------|---|
| I    | 1   | Observation of foraging activity                    | 0600-0500 | 2                  | Spotted 1 at PWCA & 1 at new site at WPWC |
|      | 2   | Observation of foraging activity                    | 0600-0500 | 2                  | Spotted 1 at PWCA & 1 at new site at WPWC |
|      | 3   | Observation of foraging activity                    | 0600-0530 | 2                  | Spotted 1 at PWCA & 1 at new site at WPWC |
|      | 4   | Observation of foraging activity                    | 0600-1200 | 1                  | Observed at WPWC                          |
|      | 5   | Survey from Burichu to Sunkosh Bridge               | 0600-0500 | 0                  | No sighting                               |
|      | 6   | Observation of foraging activity                    | 0600-1202 | 2                  | Spotted at PWDC                           |
|      | 7   | Observation of foraging activity                    | 0600-1203 | 1                  | Spotted at PWCA                           |
| II   | 8   | Observation of foraging activity                    | 1030-0500 | 1                  | Spotted 1 at PWCA                         |
|      | 9   | Survey from Burichu to Taksha                       | 0600-0500 | 0                  | No sighting                               |
|      | 10  | Survey from Burichu to Taksha                       | 0600-0530 | 0                  | No sighting                               |
|      | 11  | Survey from Burichu to Taksha                       | 0600-1200 | 0                  | No sighting                               |
|      | 12  | Raining continuously                                |           |                    |   |
|      | 13  | Survey from Burichu to Taksha and back till Sunkosh | 0600-0500 | 0                  | No sighting                               |
|      | 14  | Observation of foraging activity                    | 0130-0550 | 1                  | Spotted at WPWCA                          |
| III  | 15  | Fish sampling                                       | 0600-0500 | 0                  | Sampling carried out at WPWCA             |
|      | 16  | Survey from Burichu to Taksha                       | 0600-0500 | 0                  | No sighting                               |
|      | 17  | Travel to Zhemgang                                  | 0600-0530 | 0                  | Reached at Panbang                        |
|      | 18  | Travel from Panbang to Panthang                     | 0600-0800 | 0                  | Reached at Panthang                       |
|      | 19  | Survey at Panthang (Zhemgang)                       | 0600-0500 | 0                  | No sighting                               |
|      | 20  | Travel from Panthang to Tingtibi                    | 0600-0600 | 0                  | Reached at Tingtibi                       |
|      | 21  | Survey from Tingtibi to Tshaidang                   | 0600-1203 | 0                  | No sighting                               |
| IV   | 22  | Survey from Tingtibi to Berti                       | 0600-0500 | 0                  | No sighting                               |
|      | 23  | Survey from Goling to Goling bridge                 | 0600-0500 | 0                  | No sighting                               |
|      | 24  | Travel from Zhemgang to Gelephu                     |           |                    |   |
|      | 25  | Travel from Gelephu to Tsirang                      |           |                    | Reached at Burichu                        |
|      | 26  | Washing and cleaning (Day off)                      |           |                    |   |
|      | 27  | Survey from Burichu to Taktsha                      | 0600-1202 | 2                  | Spotted at PWCA (new seasonal Island)     |
|      | 28  | Observation of foraging activity                    | 0600-0530 | 1                  | Spotted at PWCA (new seasonal Island)     |
|      | 29  | Observation of foraging activity                    | 0730-0430 | 1                  | Spotted at PWCA (new seasonal Island)     |
|      | 30  | Observation of foraging activity                    | 0230-0600 | 1                  | Spotted at PWCA (new seasonal Island)     |
|      | 31  | Collect fecal sample which was identified           | 0600-0600 |                    |   |

| Month: November   |     |  |           |                    |   |
|---|-----|--|-----------|--------------------|---|
| Foraging Activity Patterns of the Critically Endangered White-bellied Herons ( <i>Ardea insignis</i> ) in Mangdechu & Punatsangchu River Basins of Bhutan |     |  |           |                    |   |
| Week  | Day | Activity   | Time      | No. of WBH Spotted | Remarks   |
| I   | 1   | Survey (Burichu-Taktsha), While returning spotted 1    | 0600-0500 | 1                  | Could make only 5 min observation at (Burichu Island) Bl. Bird Flew away.   |
|   | 2   | Survey (Burichu-Taktsha)                               | 0600-0500 | 2                  | Spotted 1 at Wakleytar (same spot where juveniles were spotted, 1 at Suretar Zone B.  |
|   | 3   | Observation at Suretar and Collection of fecal samples | 0530-0530 | 1                  | spotted, 1 at Suretar Zone A.   |
|   | 4   | Survey from Burichu-Taksha- Dagachu & Collected feces  | 0600-1200 | 1                  | Got numerous fecal samples from same location.  |
|   | 5   | Survey (Burichu-Sunkosh)                               | 0600-0500 | 1                  | Spotted 1 at Suretar Zone B in the evening  |
|   | 6   | Survey from Burichu-Sunkosh- Wakleytar                 | 0600-1202 | 2                  | spotted, 1 at Suretar Zone A.   |
|   | 7   | Observation of foraging activity                       | 0500-1203 | 1                  | Spotted 1 at Suretar Zone B.  |
| II  | 8   | Survey from Burichu to Sunkosh                         | 1030-0500 | 0                  | No sighting   |
|   | 9   | Survey from Burichu to Sunkosh                         | 0600-0500 | 1                  | spotted, 1 at Suretar Zone A.   |
|   | 10  | Travelled to Gelephu to purchase extra fish sampling   |           |                    |   |
|   | 11  | Halted at Gelephu                                      |           |                    |   |
|   | 12  | Return Journey from Gelephu to Burichu                 |           |                    |   |
|   | 13  | Fish sampling  | 0800-1200 |                    |   |
|   | 14  | Survey from Burichu-Taksha                             | 0800-1200 | 0                  | No sighting   |
| III   | 15  | Survey from Taksha to Sunkosh                          | 0600-0500 | 1                  | Spotted, 1 at Burichu Island, spotted night roost.  |
|   | 16  | Monitoring night roost and collection of feces         | 0400-0400 | 1                  | Collected feces from the night roost & spotted 1 at Suretar Zone b  |
|   | 17  | Survey from Burichu to Sunkosh                         | 0600-0530 | 0                  | No sighting   |
|   | 18  | Survey from Burichu to Taktsha                         | 0600-0800 | 0                  | No sighting   |
|   | 19  | Survey from Burichu-Sunkosh- Taktsha                   | 0630-0530 | 0                  | No sighting   |
|   | 20  | Survey from Burichu to Suretar                         | 0630-0531 | 0                  | No sighting   |
| IV  | 21  | Survey from Burichu to Suretar                         | 0630-0532 | 1                  | Spotted 1 at Suretar B, received RSPN officials and (Dr.) George Archibald (Co- Founder of International Crane Foundation). |
|   | 22  | Survey from Khuruthang to Phochu                       | 0600-0500 | 0                  | No sighting   |
|   | 23  | Survey from Khuruthang to Phochu                       | 0600-0500 | 0                  | No sighting   |
|   | 24  | Survey from Khuruthang to Phochu                       | 0600-0501 |                    | No sighting   |
|   | 25  | Went to temple to offer butterlamp                     |           |                    |   |
|   | 26  | Survey from Khuruthang to Phochu                       | 0630-0500 | 1                  | spotted 1 at Phochu opposite to Mr. Kinley's resident   |
|   | 27  | Survey from Khuruthang to Phochu                       | 0600-1202 | 0                  | No sighting   |
|   | 28  | Survey from Khuruthang to Phochu                       | 0600-0530 | 0                  | No sighting   |
|   | 29  | Survey from Burichu to Sunkosh                         | 0730-0430 | 1                  | Spotted at Suretar Zone B, located the night roost  |
|   | 30  | Observation & collection of fecal samples              | 0230-0600 | 1                  | Spotted at Suretar Zone B   |

**Month: December**

**Foraging Activity Patterns of the Critically Endangered White-bellied Herons (*Ardea insignis*) in Mangdechu & Punatsangchu River Basins of Bhutan**

| Week | Day | Activity  | Time      | No. of WBH Spotted | Remarks  |
|------|-----|---|-----------|--------------------|--|
| I    | 1   | Survey from Burichu-Changchey   | 0600-0500 | 1                  | Spotted at Suretar Zone B (SZB)  |
|      | 2   | Survey from Burichu-Changchey-Wakleytar   | 0600-0500 | 0                  | No sighting  |
|      | 3   | Survey from Burichu-Changchey & Collected feces   | 0530-0530 | 1                  | Spotted, 1 at Burichu Below Suspension Bridge (BBSB). Collected fresh fecal samples after the bird left. |
|      | 4   | Survey from Burichu-Changchey   | 0600-1200 | 0                  | Went to Damphu in the afternoon for shopping   |
|      | 5   | Survey (Burichu-Sunkosh)  | 0600-0500 | 1                  | Spotted 1 at Suretar Zone B  |
|      | 6   | Survey from Burichu-Changchey   | 0600-1200 | 1                  | spotted, 1 at Suretar Zone B   |
|      | 7   | Survey from Burichu-Changchey-Wakleytar   | 0600-1200 | 0                  | No sighting  |
| II   | 8   | Survey from Burichu-Changchey-Wakleytar   | 0600-0530 | 1                  | Spotted at Burichu Island  |
|      | 9   | Survey from Burichu-Changchey   | 0600-0530 | 1                  | Spotted at SZB   |
|      | 10  | Survey from Burichu-Changchey   | 0500-0530 | 1                  | Spotted at SZB   |
|      | 11  | Survey from Burichu-Changchey   | 0700-0530 | 2                  | Spotted at SZA & SZB   |
|      | 12  | Survey from Burichu-Changchey   | 0700-0538 | 1                  | Spotted at BBSB  |
|      | 13  | Survey from Burichu-Changchey   | 0700-0530 | 2                  | Spotted at SZB & Burichu Island  |
|      | 14  | Survey from Burichu-Changchey & Sunkosh Below the main highway bridge. Halted at Mr. Harka's (RSPN's local WBH working group member) home. Fish sampling. | 0700-0600 | 2                  | Spotted at SZB & Changchey opposite to Heron captive breeding site.                                      |
|      | 15  | Survey from Harka's place to Burichu  | 0630-0600 | 2                  | Spotted at SZA & SZB   |
|      | 16  | Survey from Burichu-Changchey   | 0630-0600 | 2                  | Spotted at SZB & Burichu Below Suspension Bridge   |
|      | 17  | Survey from Burichu-Changchey   | 0700-0530 | 1                  | Spotted at SZB   |
|      | 18  | Survey from Burichu-Changchey   | 0630-0600 | 2                  | Spotted at SZB & Burichu Suspension Bridge   |
|      | 19  | Survey from Burichu-Changchey   | 0630-0600 | 1                  | Spotted at Burichu Suspension Bridge   |
|      | 20  | Survey from Burichu-Changchey   | 0630-0600 | 2                  | Spotted at SZB & Burichu Suspension Bridge   |
|      | 21  | Survey from Burichu-Changchey   | 0630-0600 | 1                  | Spotted at Burichu Suspension Bridge   |
|      | 22  | Survey from Burichu-Changchey   | 0630-0600 | 1                  | Spotted at SZB   |
|      | 23  | Survey from Burichu-Changchey-Wakleytar Crusher Point   | 0630-0600 | 1                  | Spotted at Wakleytar Island  |
|      | 24  | Survey from Burichu-Changchey   | 0630-0600 | 1                  | Spotted at SZB   |
|      | 25  | Travel to Zhemgang to collect roost site data   | 0700-0830 |                    | Halt at Goaling  |
|      | 26  | Collected water parameters and carried fish sampling  |           |                    | Between Goaling and Tingitbi, Zhemgang   |
|      | 27  | Collected Roost site data   |           |                    | Goaling and Tsaidang near nesting tree   |
|      | 28  | Returned back to Burichu from Zhemgang  | 0700-0830 | 1                  | Spotted Heron at SZB on the way  |
|      | 29  | Survey from Burichu-Changchey   | 0630-0700 | 2                  | Spotted at SZB and Burichu Island  |
|      | 30  | Survey from Burichu-Changchey   | 0630-0630 | 1                  | Seen in the night roost  |

Month: January

**Foraging Activity Patterns of the Critically Endangered White-bellied Herons (*Ardea insignis*) in Mangdechu & Punatsangchu River Basins of Bhutan**

| Week | Day | Activity   | Time      | No. of WBH Spotted | Remarks                                      |
|------|-----|--|-----------|--------------------|--|
| I    | 1   | Survey from Burichu to Taktsha   | 0630-0730 | 1                  | Spotted at TCA1                              |
|      | 2   | Survey from Burichu to Wakleytar   | 0630-0730 | 1                  | Spotted at WPWC1                             |
|      | 3   | Fish and water parameters sampling   | 0630-0530 |                    |  |
|      | 4   | Travelled to Thimphu to process approval from National Biodiversity Centre                         |           |                    |  |
|      | 5   | Travelled to Punakha to observe Heron for the last time  |           |                    | Couldn't locate the heron at Phochu, Punakha |
|      | 6   | Returned back to Thimphu from Punakha  |           |                    |  |
|      | 7   | Visited RSPN office to return camera traps and acknowledge for their kind support                  |           |                    |  |
|      | 8   | Visit National Conservation Division to return camera traps and acknowledge for their kind support |           |                    |  |
|      | 9   | Visit BAFRA office to seal the DNA samples and get further approval                                |           |                    |  |
|      | 10  | Visit NCD for processing CITEs permit  |           |                    |  |

Appendix below: Official documents and permits furnished for onward transfer of genetic materials.



**CITES CERTIFICATE/PERMIT**

1. NUMBER

|  |  |   |   |                                  |       |  |
|--|--|---|---|----------------------------------|-------|--|
| 3. Importer<br>(Name, Address & Country)   | Dr. Sara Bumrungsri<br>Asst. Professor<br>Department of Biology<br>Faculty of Science<br>Prince of Songkla University<br>Hat Yai, Thailand | <br>Signature of the Applicant  | 2. Valid Until                                  | 14.07.2019                       |       |  |
| 4. Exporter/Re-Exporter<br>(Name, Address, Country)  | Master Student<br>Prince of Songkla University<br>Hat Yai, Thailand  | Others:.....  | Applied for                                     | S                                |       |  |
|  |  | Country:  | Bhutan  |                                  |       |  |
| 5. Special Conditions:<br>If for live animals, this permit or certificate is valid only if the transport conditions comply with the <i>IATA Live Animals Regulations</i> ; if for live plants, with the <i>IATA Perishable Cargo Regulations</i>   |  |   |   |                                  |       |  |
| 5a. Purpose of Transaction:  | S  | 6. Name, Address, National Seal/Stamp and Country of the Management Authority |   | <br>Thimphu, Bhutan<br>Date..... |       |  |
| 5b. Security Stamp No:   |  |   |   |                                  |       |  |
| 7/8. Scientific Name<br>(Genus, species) and Common Name of the animal/plant.  | 9. Description of specimens,<br>including identifying marks/tag<br>number/age/sex (if live)  | 10. Appendix No. &<br>Source  | 11. Quantity<br>(Including Unit)                | 11a. Total Exported/Quota        |       |  |
| A<br>7/8<br>White-bellied Heron<br><i>Ardea insignis</i>   | 9<br>Feathers/<br>Fecal Matter/<br>Egg shel  | 10<br>1   | 11<br>300 gms fecal<br>matter<br>80 Nos feather | 11a<br>0                         |       |  |
| 12. Country of Origin*   | Permit No.   | Date:   | 12a. Country of last re-export                  | Certificate No:                  | Date: | 12b. No. of operation<br>** or<br>date of acquisition*** |
| B<br>7/8   |  |   |   |                                  |       |  |
| C<br>7/8   |  |   |   |                                  |       |  |
| * Country in which the specimens were taken from the wild, bred in captivity or artificially propagated (only in case of re-export)<br>** Only for specimens of Appendix-I species bred in captivity or artificially propagated for commercial purposes.<br>*** For pre-convention specimens |  |   |   |                                  |       |  |
| 13. This Permit/Certificate is issued by:<br>Place: Thimphu<br>Date: 14-01-19<br>Signature:<br>Security stamp & Official seal:   |  |   |   |                                  |       |  |
| <b>CITES Management Authority</b><br><b>Nature Conservation Division</b><br><b>Department of Forests &amp; Park Services</b><br><b>Royal Government of Bhutan</b>  |  |   |   |                                  |       |  |
| 14. Export Endorsment:   |  |   | 15. Airway bill number:                         |                                  |       |  |
| BLOCK  | QUANTITY   | Port of Export..... Date..... Signature.....<br>Official Stamp and Title      |   |                                  |       |  |
| A  |  |   |   |                                  |       |  |
| B  |  |   |   |                                  |       |  |
| C  |  |   |   |                                  |       |  |



རྒྱལ་ཡོད་འབྲུག་རྒྱལ་ཁབ།  
ཚོན་མ་དང་རྩ་བའི་ཚོང་རྒྱུ་ལག་ཁྲམ།

འབྲུག་ཚོན་མ་དང་རྩ་བའི་ཚོང་རྒྱུ་ལག་ཁྲམ་དོན་དཔེ་རྒྱ།

**ROYAL GOVERNMENT OF BHUTAN**  
Ministry of Agriculture and Forests  
Bhutan Agriculture and Food Regulatory Authority (BAFRA)  
Tashichodzong, Thimphu: Bhutan



Sl.No.002

Date:-09.01.2019

**TO WHOM IT MAY CONCERN**

As per the Material Transfer Agreement reference no. **NBC/BRD/7/2018-2019/40** dated 07/01/2019, 300 grams of Fecal Samples and 80 nos. feathers provided by Mr. Pema Khandu, M.Sc. Biology student of Prince Songkla University, Thailand, to recipient Dr. Sara Bumrungsri, Asst. professor of Prince Songkla University of Thailand bearing pass port No. OF1134886.

Since, the transferred material shall be used only for the purpose of conducting genetic analysis to determine the type of prey ingested by the bird, concerned officials may kindly allow export without any hindrance.

  
Tashi Dorji  
Tashi Dorji  
Sr Regulatory & Quarantine Inspector  
EID No 200507071



#### **Article 4 - Subject Matter of the Material Transfer Agreement**

4.1 300 grams of fecal matter and 80 feathers of White-bellied Heron collected from Mangdechhu and Punatsangchu river basin are hereby transferred from the Applicant to the Recipient and are subjected to the terms and conditions set out in this Agreement.

#### **Article 5 – Destination**

5.1 The destination of the material shall be Prince of Songkla University Hat Yai campus: 90110, Thailand.

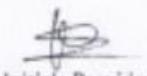
#### **Article 6 -Terms and Conditions**

- 6.1 The Recipient undertakes that the transferred Material shall be used only for genetic analysis to determine the type of prey ingested by the bird. In case of change of intent, the Recipient and the Provider shall seek the prior written approval from the Ministry of Agriculture and Forests(MoAF).
- 6.2 The Recipient shall take full responsibility for the safety and protection of the material and shall be liable of misuse by any third party.
- 6.3 The materials shall be return to material origin country upon successful completion of the study.
- 6.4 Any publications related to this collaboration shall have joint authorship with appropriate Bhutanese counterpart which shall be Mr. Pema Khandu for this agreement.
- 6.5 The Recipient and the Applicant shall provide regular updates on the progress of the study to the MoAF through NBC. The full study results including confidential information shall be submitted to NBC accordingly, upon completion of the study or not later than 31<sup>st</sup> July 2019.
- 6.6 It is the responsibility of the Recipient to bring to the notice of relevant authorities of Prince of Songkla University, Thailand about the conditions set in the agreement and the usage of the transferred Material.
- 6.7 In case of new discovery (ies), the Recipient and the Provider shall inform MoAF through NBC of such discovery (ies) immediately without fail.
- 6.8 The Recipient and the Applicant shall not apply for any intellectual property rights without prior written approval from the MoAF.
- 6.9 Applicant makes no warranties as to the safety of the Material, nor so to the accuracy of any passport or other data provided with the Material. Neither does it make any warranties as to the quality, or purity (genetic or mechanical) of the Material being supplied. The Recipient assumes full responsibility for complying with the counterpart nation's quarantine and biosafety regulations and rules as to the import of the Material.

#### **Article 7 – Settlement**

7.1 The Parties shall discuss sincerely and settle amicably on matters which are not stipulated in this Agreement or interpretation of this Agreement.

7.2 This Agreement shall be governed by and construed in accordance with the laws of Bhutan.

  
Initials Applicant



  
Initials Recipient



National Biodiversity Centre  
Ministry of Agriculture & Forests  
Royal Government of Bhutan



Material Transfer Agreement

Reference No: NBC/ BRD/7/2018-2019/ 40

**Article 1 – Parties to the Agreement**

1.1 This Agreement is made between:

National Biodiversity Center (NBC), Ministry of Agriculture and Forests, Serbithang, Thimphu, Post Box No. 875. (*National Focal Agency on Access to Genetic Resources and execution of Material Transfer Agreement*).

**Applicant:** Mr. Pema Khandu, M.Sc Biology student of Prince Songkla University, Hat Yai, Thailand, bearing CID No. 10207784295 (hereinafter referred to as "Provider")

And

**Recipient:** Dr. Sara Bumrungsri, Asst. Professor of Prince Songkla University of Thailand bearing Passport number: OF1134886 (hereinafter referred to as "Recipient").

**Article 2 – Preamble**

2 The Material Transfer Agreement is executed in fulfillment of Article 9 of the Biodiversity Act of Bhutan 2003 and based on the Ministry's approval note-sheet No: NBC/BRD/7/2017-2018/502 dated 3<sup>rd</sup> May, 2018.

The Provider and the Recipient acknowledge that the Royal Government of Bhutan (hereinafter referred to as RGoB) retains legal ownership of the Material. The Provider is authorized to transfer to the Recipient the Material specified under Article 4 of this agreement upon execution of this Material Transfer Agreement (MTA) between the Provider and the Recipient.

The Provider and Recipient shall jointly be referred to as "Parties".

**Article 3 – Definitions**

3.1 In this Agreement the expression set out below shall have the following meaning:

**"Material"** shall mean 300 gram of fecal matter and 80 feathers of White-bellied Heron as mentioned in article 4.1 of this Agreement.

**"Applicant"** means the person/Institution providing the material and for this agreement is Mr. Pema Khandu, M.Sc student of Prince Songkla University, Thailand.

**"Recipient"** means the person receiving the material and for this agreement, Dr. Sara Bumrungsri, Asst. Professor of Prince Songkla University of Thailand

  
Initials Provider



  
Initials Recipient

