

Project Update: May 2019

White-bellied Heron Survey

The team conducted field surveys for the white-bellied heron (*Ardea insignis*) from January 2018 – April 2018 across all the seven major river basins (Kameng, Subansiri, Siang, Dibang, Lohit, Kamlang and Noa-Dehing) in Arunachal Pradesh and in January 2019 in one river basin in Manas Tiger Reserve, Assam. We have surveyed a total of 101.3 km across 81 sites. We walked a stretch of up to 2 km, considered as one site, and recorded micro-habitat data at every 100 m while recording all riverine birds seen. The white-bellied heron (hereafter WbH) was only observed in three sites, all inside Namdapha Tiger Reserve. Though it is well known that the WbH is present in Namdapha Tiger Reserve, it is of concern that the first large-scale river survey in India for the species has not led to any new locations for the species, thus highlighting the grave situation of the bird. In total, we recorded 66 species of riverine birds across Arunachal Pradesh, of which five were globally threatened (Oriental darter, river lapwing, black-bellied tern, great thick-knee and the white-bellied heron). In addition to the field surveys, 200 key informant surveys were conducted across the state with various stakeholders. The aim of the key informant surveys was to make sure we filled in the gaps left by on-ground field surveys. Analysis for the data collected is under way.

White-winged Duck Survey

The surveys for the white-winged duck (WwD) *Asarcornis scutulata* began in October 2018 and ended in March 2019. We have surveyed 40 ponds across five protected areas in Assam. Literature shows that the WwD prefer forested pools to occupy and hence we targeted our efforts towards such habitats while also sampling some forested streams. An occupancy framework approach was used to survey for the WwD and as a result, each pond was surveyed four times. Of the 40 ponds sampled, we have sighted the WwD in three sites in two protected areas. Data analysis is ongoing.

Methodology:

Protected areas across Assam were selected based on a thorough literature review on the white-winged duck, where we considered it important to sample areas with historic evidence of presence of the species. In each protected area, our team carried out exploratory surveys to look for forested pools, a habitat that is specific to white-winged duck. Once a forested pool was identified, we followed a survey-constrained occupancy framework to sample this habitat. This methodology included visiting each pond four times, twice on two mornings and twice on two evenings. During each visit, we spent 30 minutes observing the pond while being as inconspicuous as possible. We recorded all species of water birds that visited the pond during each visit. We also recorded the habitat characteristics of the pond and the vegetation around it using the point-centred quarter method. Area of the pond was also noted. In addition, we made detailed notes on the anthropogenic indicators observed in and around the ponds surveyed so far.

Other than the field surveys that were conducted, we also gathered data through key informant surveys where we interviewed people who frequented the forests. The interviewees could be categorised as four stakeholders i.e. the Forest Department

staff, local community members who used to or still enter the forest for NTFPs, researchers and birders who visit the various parks. Bird photograph plates were used during the survey. Information about the WwD sightings, if any, was recorded along with information on the threats that they have observed in the area and about the conservation efforts they have come across in the area with respect to the WwD.

Results:

As of the end of January 2019, a total of 40 forested pools had been sampled across six protected areas of which five were in Assam and one in Arunachal Pradesh. The protected areas sampled in Assam were Manas Tiger Reserve, Nameri Tiger Reserve, Dehing-Patkai Wildlife Sanctuary and Dibru- Saikhowa Biosphere Reserve. Pakke Tiger Reserve was also sampled in Arunachal Pradesh. Since each site was sampled four times, we surveyed the habitat of the WwD a total of 160 times. Out of these 160 surveys, the WwD was sighted in the forest pools on three occasions. It was observed thrice in one pond in Nameri Tiger Reserve and once each in two different ponds in Dehing-Patkai Wildlife Sanctuary. The largest flock of the WwD that was observed was in Nameri Tiger Reserve where five were seen swimming in the pond.

Vegetation data was collected for all 40 sites and will be analysed after the completion of fieldwork. Anthropogenic indicators were present in almost half of the ponds visited and these included fishing, oil spillage, campers next to the pond, industrial activities right on the periphery of the ponds and uncontrolled inflow of tourists.

Awareness programmes:

As a part of the current project, we have participated in awareness programmes and important discussions related to the white-bellied heron and the white-winged duck. The events we participated in are listed below:

- We were recruited as members of the IUCN Heron Specialist Group as well as the White-bellied Heron Working Group under IUCN-SSC.
- Attended a meeting to discuss the status of the WbH in India, arranged by the coordinator of the WbH Working Group in Mumbai in August 2018.
- Participated in an awareness programme on the white-winged duck that was co-organised by Aaranyak in Soraipung, Assam. The event was held for schoolchildren who all resided in a forest village adjoining the WwD habitat.
- We attended a mapping workshop, organised by the IUCN Heron Specialist Group and ATREE, in Guwahati (February 2019) where potential survey sites for the WbH were identified.
- Have distributed posters that talk about the WbH and the WwD, across Arunachal Pradesh, especially in schools and Forest Department offices

Publications:

- An update on the endangered black-bellied tern *Sterna acuticauda* from Dibru-Saikhowa National Park. Menzies and Rao. In review with Indian Birds. Submission date – January 7th, 2019.
- Eastern imperial eagle *Aquila heliaca* at Dibru-Saikhowa National Park, Assam. IndianBirds. Menzies and Rao. In review with Indian Birds. Submission date – February 6th, 2019.

- Two new locations for the black-necked crane *Grus nigricollis* in Arunachal Pradesh, India. Menzies, Rao and Kumar. In review with *Forktail*. Submission date – February 24th 2019.



Left: River in Upper Dibang. Right: Namdapha River.



Fieldwork in Pakke.



Top: White-bellied Heron. Bottom: Ibisbill amongst plastic.