



Nature heals faster than we think: The return of Cotton Pigmy-Goose (*Nettapus coromandelianus*) in Gauhati University Campus, Assam

Mandal Jaydev^{1*} and Chetry Vivek²

^{1*}Assistant Professor, Department of Zoology, Madhab Choudhury College, Barpeta – 781301, Assam

²Research Scholar, Department of Zoology, Gauhati University, Gauhati – 781014, Assam.

*E-mail: jaywithdev@gmail.com

The Gauhati University Campus is situated within the geographical coordinates 26.148°N and 91.653°E to 26.156°N and 91.676°E. The campus is full of swamps, water bodies and forest covered hills, surrounded by human settlements and agricultural lands. The swamps and water bodies forms low-lying areas, that served as catchments for flood water during monsoon. The nutrient deposits in these low-lying areas allow various hydrophytes to bloom, including lotus, water hyacinth, pistia and a number of aquatic grasses. On the other hand forests are dominated by Teak *Tectona grandis* and many *Ficus* species, forming a dry deciduous type. The forested hills and low-lying swamps forms a tremendous diverse habitat for wild animals. The campus is well known for rich avian diversity and is a home to more than 160+ species of birds including resident, migrant and passage migrant species (Devi et al. 2012; Personal observation, uploaded in www.ebird.org). During winter many waterfowls visited these wetlands and swamps. All these water birds once used to spent couple of months feeding on it's rich food resources and preparing for the next breeding season. This annual cycle of migration have been repeated again and again. Though it is difficult to say the first visit of the migrants to the campus, may be since couple of years/decades or even earlier; from it's establishment in the year of 1948. The campus is set us on the agricultural lands full of swamps and marshes that also has small hills and hillocks of Nilachal hill ranges and is situated within the geographical coordinates 26.148°N and 91.653°E to 26.156°N and 91.676°E (Figure 1). The campus is full of swamps, water bodies and forest covered hills, surrounded by human settlements and agricultural lands. The swamps and water bodies forms low-lying areas, that served as catchments for flood water during monsoon. The nutrient deposits in these low-lying areas allow various Hydrophytes to bloom, including Lotus, Water Hyacinth, Pistia and a number of aquatic grasses. On the other hand forests are dominated by Teak *Tectona grandis* and many *Ficus* species, forming a dry deciduous forest type. The forested hills and low-lying swamps forms a tremendous diverse habitat for wild animals. Besides these, there are paddy-fields and scattered grassland patches within the



campus which in spite of traffic and human disturbances surprisingly support a large number of grassland dwelling birds. It is located close to the 'Deepor beel' Ramsar site.

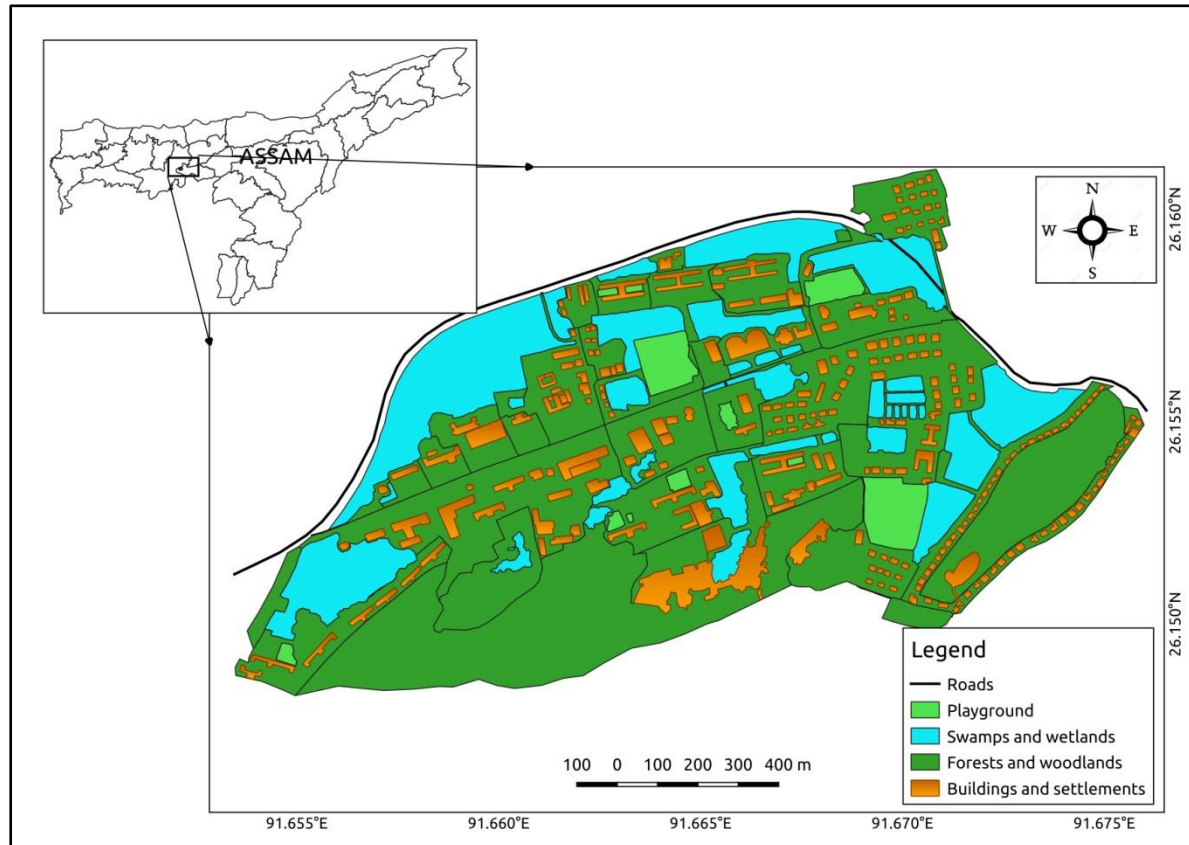


Figure 1: Map of Gauhati University Campus, Gauhati, Assam

It is often said that nothing is permanent and last forever in both ecological and socioeconomic point of view. As 'succession' process in ecology, and 'development' in the socioeconomic perspective. Development is a much required in the process economic growth for developing countries which requires a cost, in the form of economy, labour and many others. But, the question is, what cost should nature pay? In the year 2012 the swamps and wetlands along the North and water bodies of Eastern boundary of the campus have been filled for diversion of the National Highway (NH-37) (Mandal et al. 2013). These abrupt change in the habitat has led to change in floral composition as well as change in physio-chemical properties of the swamps and wetlands. This in turn has resulted in less avian diversity especially water birds belonging to Anatidae family. Soon after these changes, the following year water birds did not return nor did they next. Several years have been passed, so do the developmental activities and succession. The water bodies that were filled and rolled several layers of charcoal over it. People continued using it for their transport. In the



same way, the newly constructed ponds and water bodies kept adding species and changing its community.



Figure 2: Cotton Pygmy-Goose *Nettapus coromandelianus* in the wetlands of Gauhati University Campus

The campus harbors more than 150 species of birds of which majority of them are residents and breeds within the campus such as Common Myna, Spotted Dove, red-vented Bulbul etc. May are local migrants and visits the campus only during particular period of time such as Blue Whistling-Thrush (*Myophonus caeruleus*), Black-naped Monarch (*Hypothymis azurea*), Barn Swallow (*Hirundo rustica*) etc. Some also fall under IUCN red list including endangered species Greater Adjutant (*Leptoptilos dubius*) and Steppe Eagle (*Aquila nipalensis*) and Vulnerable Lesser Adjutant (*L. javanicus*). The Cotton Pygmy-Goose (Cotton Teal) (*Nettapus coromandelianus*) a widespread resident breeder in India (Baker 1897; Higgins 1926; Choudhury 1998; Dickinson 2003; Narasimmarajan et al. 2013) mostly found in wetlands of different kinds. It was on 12 February 2018 when a pair of *N. coromandelianus* was sighted within the university campus (Mandal 2018) after its last record in 25 February 2010 (Mandal 2010). This species have been recorded after almost eight years. Though, they are resident in this region (Ali et al. 1987; Grimmett et al. 2012), but for the campus they were local migrants. As the chicks and immature have never been seen from this place nor their nests. There are several resident water bird species breeding within the campus. For instance Lesser Whistling-Duck *Dendrocygna javanica*, White-breasted Water hen *Amaurornis phoenicurus*, Eurasian Moorhen *Gallinula chloropus* and Bronze-winged Jacana *Metopidius indicus*. Now the goose species can be frequented during other months as well, for instance it was again sighted in 04 May 2019. The month of May is usually a breeding season for most of the resident species. Thus, there might be some potential habitats within the campus where they might be breeding. The wetlands of the campus still awaits for the winter visitors that once used to teem on its rich resources.



Conclusion

The *N. coromandelianus* a widespread resident breeder in India and can be seen in several smaller flocks in diverse wetlands. On the other hand, like most of the water birds, the *N. coromandelianus* is also susceptible to environmental degradation following anthropological activities. Following the major constructional changes the wetlands of Gauhati University campus has vanished so do the water birds. It was later in the 2017 when the wetlands are cleaned and cleared of weeds and vegetation, a pair of *N. coromandelianus* visited the campus next year. The removal of the infesting weeds from the wetland and their cleaning has given a chance to the water birds to return to the campus.

Acknowledgment

Anubhav Bhuyan for helping for the map and also accompanying during birding events. We would also like to thank all the birding companions within the campus time to time.

References:

- Ali, S., & Ripley, S. D., 1987. *Compact handbook of the birds of India and Pakistan : together with those of Bangladesh, Nepal, Bhutan and Sri Lanka*. 2nd ed. Delhi: Oxford University Press. Pp. i–xii, 1–737.
- Baker, E. C. Stuart 1897. Indian ducks and their allies. Part II. *Journal of the Bombay Natural History Society*. 11: (2) 171–198.
- Choudhury, A. 1998. A nesting tree of the Cotton Teal. *Newsletter for Birdwatchers*. 37: (6) 107.
- Dickinson, E. C. 2003. Systematic notes on Asian birds. 38. The McClelland drawings and a reappraisal of the 1835-36 survey of the birds of Assam. *Zoologische Verhandelingen, Leiden*. 344: 63–106.
- Higgins, J. C. 1926. Assamese names of certain birds used in Nowgong District. *Journal of the Bombay Natural History Society*. 31: (3) 819–820.
- Devi, O., Islam, M., Das, J. & Saikia, P. K., 2012. Avian-fauna of Gauhati University Campus, Jalukbari, Assam. *The Ecoscan* (6):79–84.
- Grimmett, R., Inskipp, C. & Inskipp, T., 2012. *Birds of India, Pakistan, Nepal, Bangladesh, Bhutan, Sri Lanka, and the Maldives*. London: Princeton University Press. Pp. 1–528.



Narasimmarajan, K.;Chetri, Dhruva;Ri, Chandan;Mathai, Manu Thomas 2013. Bird species of conservation concern along the Brahmaputra River in Assam, northeast India. *Podocees*. 8: (2) 31–37.

Mandal, J., Goswami, P., Baruah, R. R. & Saikia, P. K., 2013. Making it worst for the wrong reason: The weeping wetlands. *European Journal of Zoological Reserach* (2):10–13.

Mandal, J. 2018. Website URL: <https://ebird.org/india/checklist/S57884456>. [Accessed on 24 November 2021.]

Suggested citation:

Mandal J. and Chetry V. (2021). *Nature heals faster than we think: The return of Cotton Pygmy-Goose (Nettapus coromandelianus) in Gauhati University Campus, Assam. Prithivya, An Official Newsletter of WCB Research Foundation and WCB Research Lab. Vol 1(3) 1-5.*

