Citizen science takes wing to understand local avian patterns

By Vidya Mary George. Published on Jottings on 17 November 2018

A group of citizen scientists flocked together behind binoculars to help in urban wetland management by compiling baseline data on the waterbirds in a wetland in Tamil Nadu.

Tracking trends

Although most urban wetlands in India are considered to be extremely polluted, they still attract a large number of winged visitors for food, rest, and shelter. A group of citizen scientists took to birding in Perur Lake, a wetland complex in metropolitan Coimbatore, Tamil Nadu, to assess the composition and status of its waterbirds from May 2014 to April 2016.

The systematic monthly count indicated that Perur Lake sustained resident/local migrant birds throughout the year and is home to 112 species of birds, including 49 species of waterbirds. The lake is also a major stopover and wintering ground for 17 species of winter migrant birds. It appears that avian diversity and numbers are at their highest from February to April during the northward migration of birds in spring.

Bird-friendly wetlands

Waterbirds generally prefer wetlands that maximise the abundance and accessibility of their food and avoid areas with extensive human disturbance. Perur Lake contains a rich diversity of molluscs and fish that provide food for waterbirds and is relatively unpolluted. The lake, however, is subject to various habitat encroachments such as road construction and its use by motor vehicles, illegal and unauthorised dumping of waste material, conversion to an artificial reservoir for agricultural use, and the establishment of hutments. These human activities impair the functionality of the wetland, as seen from the reduced number and diversity of birds during the road construction period in the lake.

The study also suggested that the presence or absence of water and its levels in the lake is a key determining factor of the avian species composition. Meeting the needs of all birds by maintaining adequate water levels in the wetland during the critical months of February–May can also be beneficial for local communities as it allows more time and opportunity for groundwater recharge.

- Adequate water levels must be maintained in wetlands during the crucial months of February–May for the benefit of all birds, especially migrating waterbirds.
- Similar studies need to be conducted in some of the adjoining wetlands of the area in a synchronous manner for better understanding and substantiating the possible avian patterns.

Reference

Parameswaran, G. & R. Sivashankar (2018). The composition and status of waterbirds of Perur Lake in Tamil Nadu, India. *Journal of Threatened Taxa* 10(11): 12464–12488; https://doi.org/10.11609/jott.3864.10.11.12464-12488

Citizens have the power to make a difference. Contact us if you're interested in taking your binoculars on the road with LivelyWaters! or PteroCount.

This write-up was originally published on Jottings at https://threatenedtaxa.org/jottings/conservation/citizen-science-takes-wing-to-understand-local-avian-patterns/

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