

Kole Birders: Learning habitat conservation from the birds

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- *Kole Birders, a group of voluntary birdwatchers have been keeping track of the bird population in the Kole wetlands of Thrissur district, a site listed as a wetland of international importance under the Ramsar Convention.*

Through this citizen science initiative they are not only helping in collecting bird data but also helping in spreading awareness of the importance of conserving this unique wetland habitat.

- The Kole wetlands is the largest Ramsar site in India, and provides multiple ecosystem services to the midland and coastal population of Kerala.
- [This group's work connects seamlessly with the project to develop bird atlases for Kerala and to carry out a national bird count.](#)

As the birds returned to their roosts on a warm evening, a motley group of young people gather for a meeting in the Thekinkkad Maidan in Thrissur city of central Kerala. The gentle slope outside the temple gate of Vadakkunathan temple has been the meeting place for generations of Thrissur residents. But this group is different. They are not there to play cards or discuss politics. They are chalking out a plan on what to be done during the next month to survey cormorant and egret heronries in and around the city. They call themselves Kole Birders. They are birders because they are bound by their common love for birdwatching and citizen science. The Kole wetlands are where they focus geographically. They have different day jobs – working in a software engineering firm, a tyre company, a village office, doing research in forestry for a PhD and journalism. This group of nearly 15 is at the core of a larger network of more than 200 connected through social media. **Documenting birds in the Kole wetlands. Photo from Kole Birders.** For the past few years this group has been systematically monitoring the population of resident and migrant birds in the Kole wetlands of Thrissur district. Their citizen science has built into a larger *eBird*-based platform that scientists from the multiple institutions are working upon to develop a bird atlas for the country. “The pioneers amongst us started birdwatching in the Kole wetlands since the early 1990s,” said Manoj Karingamadathil, who has a day job creating digital maps. “We blend our enthusiasm with the scientific knowledge contributed by experts to create a citizen science platform that strengthens our understanding about birds and their habitats. We also spread awareness amongst others who are not part of our group.” P.O. Nameer, head of the Department of Wildlife Sciences in the School of Forestry, Kerala Agricultural University at Thrissur, is one such pioneer who started birdwatching in the Kole wetlands and currently is the expert support for this citizen initiative. “I have been documenting Kole birds for three decades,” recalled Nameer nostalgically. “I was introduced to birdwatching when, in 1986 as a student of forestry, I went to Parambikulam for a tiger census. Then one of my friends invited me to the Kole wetlands and I have gone there ever since.” Impressed with Kerala’s first book on ornithology, called [Keralathile pakshikal](#) (the birds of Kerala) by K.K. Neelakanthan, Nameer and his small band of enthusiastic friends identified at least 10 important birdwatching sites in the Kole wetlands. They have longitudinal data from these sites for 28 years. “As part of our work we collaborate with other interested people,” Nameer said. “The Kole Birders are a group of people that grew from this. It is very good to get support from the local community. They provide information to us – about habitat destruction, waste dumping, reclamation and poaching. Now there is an excellent network across the Kole where enthusiasts have taken part in many of our bird counts and thus gained interest and understanding.” **What are the Kole wetlands?** The Kole wetlands are one of three sites in Kerala that are listed under the Ramsar Convention on wetlands of international importance. The citation about the Vembanad-Kole wetlands on the Ramsar Convention website states that it is “the largest brackish, humid tropical wetland ecosystem on the southwest coast of India.” With a spread of 1512 square km, it is “fed by 10 rivers and typical of large estuarine systems on the western coast, renowned for its clams and supporting the third largest waterfowl population in India during the winter months. Over 90 species of resident birds and 50 species of migratory birds are found in the Kole area.”

Greater flamingo in the Kole wetlands. Photo by Mini Anto. The citation further states, “flood protection for thickly-populated coastal areas of three districts of Kerala is considered a major benefit, groundwater recharge helps to supply well water for the region, and the value of the system for the local transport of people and trade is considerable.” The wetlands spread into two districts of Kerala – Thrissur and Malappuram – and stretch between laterite hills and estuaries. Since centuries this human-managed ecosystem has been used for cultivating rice, catching fish, rearing ducks and grazing livestock (only in the dry months). Vegetables and plantation crops are grown in the higher ground adjacent to the wetlands. **Birds as an entry point into conservation discussions** Even though the Kole wetlands are the largest Ramsar site listed from India (the second largest is Chilika Lake at 1165 square km), in the public perception there is not a strong understanding of its significance and uniqueness. The Kole Birders, through their interactions with local communities at the grassroots are helping build and spread that understanding. “I got into birdwatching after following the birds that came to my home,” said Anith Anilkumar, a member of the team who is a journalist by profession. “It is later I got involved with others who document birds. I started enquiring about which plants attracted which birds and how long they stay in a place before moving on. Through my understanding I realised the need to conserve trees and water bodies.” With the water situation in Kerala becoming unreliable over the years, there is a need to spread this understanding among people, according to him. “Everybody talks about trees, water and birds, but the reality is that there are more buildings and less trees.” *Birdwatchers in the midst of the wetlands. Photo from Kole Birders.* Talking about birds is a good entry point into this discussion. “When people have a better understanding they will come to conservation,” said Prashanth Sachindranath, who works at the village office in Venginniserry. “The Kole wetlands are cultivated by private farmers many of whom are realising the importance of birds to ward off insect pest attack. With time, more people understand the linkages. Conservation understanding will naturally come with the understanding about birds. Social media and other discussion platforms are strengthening this understanding.” **Bird atlas for every district** The Kole Birders’ methodical approach to documenting bird population led to them developing the bird atlas for Thrissur district, in collaboration with Nameer’s team at the School of Forestry of the Kerala Agriculture University. The bird atlas project for each district of Kerala builds into a larger national project – [Bird Count India](#) – to develop such atlases for the entire country. Bird atlases of Alappuzha and Kannur districts. Photo courtesy the School of Forestry, Kerala Agricultural University. E.S. Praveen of Kole Birders is one of the two co-authors for the Thrissur district bird atlas. From an engineer working with a tyre company to a volunteer birder to an author of scientific-popular handbook, for him it was a process of transition and learning. “Like other birdwatchers I started with photographing birds,” Praveen said. “In the early years the aim was to shoot beautiful pictures. Today, a picture is just a tool for identification. Our aim is to understand the bird life and its interaction with the Kole habitat. We want to continuously monitor the wetlands for trends, habitat changes and threats. We want to document all components of the wetland’s biodiversity – birds, fishes, amphibians, reptiles, etc.” Suhel Quader, senior scientist, *Nature Conservation Foundation*, leading the national bird count project, commends the way the Kerala birdwatching community is working with the local people, experts and the forest department to develop the district bird atlases. “The birdwatchers in Kerala are unique among the various states in the degree to which they have organised and carried out important activities,” he observed. “From forest bird surveys, to pelagic bird surveys, heronry counts and most recently the Kerala Bird Atlas, they taken the lead in documenting birds for conservation,” Quader said. “As a result, birds of Kerala are better known than those of any other state.” Nameer said that the backbone for this multi-stakeholder collaboration started with the Green Partnership Programme that was launched by the Kerala Forest Department in November 2013. With institutional support from the forest department, more than 20 groups like the Kole Birders to collect data on birds. “By 2015 we started working on bird atlases,” Nameer said. “Kerala is the first state to attempt to do district-level bird atlases in Asia. Our intention is to map the bird species, their distribution and abundance across Kerala.” A page from the Kannur district bird atlas shows the details regarding geographic and seasonal abundance of different species of birds. Photo courtesy the School of Forestry, Kerala Agricultural University. With the involvement of 2,000 volunteers across the state, 80 percent of the work is over. The bird atlases of three districts are ready – Alappuzha, Kannur and Thrissur – whereas the first two have been published as handbooks. Data collection from Kasargod and Malappuram are also complete. Nameer expects the work to be

over by 2020. "We have designed a rigorous process," said Nameer. "Since the total area of Kerala is 38,000 square km, we decided to do 10 percent sampling and identified 3,800 grids of 1 square km each. The birders can choose any of the grids to do a count. They can identify their grid using the Locus app." From the field the birdwatchers identify the birds and mark their location and abundance (across locations and across the months of the year). This data is then validated and reviewed by experts and published. All the data is uploaded under the eBird platform. "The district bird atlases carry much information and will be a baseline for bird population in the state. If somebody repeats it after 10 years you know what changes have happened," Nameer observed. Over the years, the birdwatchers of Kerala have already been able to document enough data to notice trends in changes in bird populations, which in turn could be indication for climate change. For instance, they noted the presence of 36 species of dry-land birds that should not have been in Kerala. Birds are powerful animals. Some of them have the ability to fly across continents. Some keep ecosystems healthy. And then there are some, who bring together citizens, scientists and the government to develop an innovative public education programme on environment. First published by **Mongabay** on 7 August 2018