

How to hatch an atlas

It's the largest systematic bird survey in Asia. See how 1,000 citizen volunteers spent five years tracking flight paths, nesting spots and migration dates, keeping count of flying friends

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To compile the first state bird atlas, Kerala's volunteers tracked avian species like the painted stork, black-headed ibis, canary flycatcher, Nilgiri flycatcher, the black-and-orange flycatcher and the purple swamphen.

With most maps, you look east, west, north and south. To use the Kerala Bird Atlas, you must look up as well. The digital cartographs cover skies and treetops across Kerala, documenting 150 local and migratory birds. And unlike a guidebook, state-wide data is localised, seasonal and systematic.

You can tell how many of a particular species visited one valley and not the other over the last summer.

The atlas is the first of its kind in Asia. Released in September, it was put together by the Kerala Agricultural University in Thrissur and the non-profit database Bird Count India. It's a project five years in the making, done on a feather-light budget.

An informal network of more than a thousand citizen volunteers and birders was solicited via newspaper ads. They were then trained and assigned 1-sq-km grids across various habitats from which to collect on-ground data in the winter and monsoon to best track major migration movements.

"It's been a long, long journey," says PO Nameer, special officer at the university's Academy of Climate Change Education and Research. "But we have a priceless baseline for how birds are spread across the state, their varieties, abundance and locations."

That the atlas was developed in Kerala is no surprise to bird enthusiasts. The coastal, hilly forested state is abundant in beautiful birds. But it also has a rich bird-watching history. In 1933, the ornithologist Salim Ali made an unscheduled stop at the flat forests of Thattekkad, describing the sanctuary as the richest bird habitat in peninsular India. Bird surveys have been conducted since the 1990s, and birding tours are popular.

The idea for an atlas took flight for two reasons, Nameer says. "The state had an excellent network of researchers to accompany volunteers. And we had eBird." This online database, created by Cornell University's ornithology department and maintained by volunteers worldwide, records real-time, location-based information on bird distribution and abundance. There's information from every region in India, and from collaborators across over 25 countries. It's an invaluable tool for researchers and naturalists conducting fieldwork.

In Kerala, it helped volunteers collect and collate vast swathes of data quickly. It also credited each volunteer who made a sighting or count. "This motivated them to complete the job, and develop a competitive spirit between districts. I was happy to see birds and data, but seeing humans display such enthusiasm left me with great joy," Nameer says.

One of those humans was Lathika Kathirur, a 53-year-old school teacher from Kannur who's been birdwatching for 25 years. Her grid covered forested land, making wet- and dry-season fieldwork a pleasure. "Birding is a hobby and some-

thing most people do to pass the time," she says. The atlas, then, was a great way to turn all that enthusiasm into a document that might protect birds, including her favourites, flycatchers and owls.

In the UK, which has been updating a regional bird atlas developed in England in 1970, the data about bird hotspots and population changes is so comprehensive, it's used as policy document for conservation. The data from Kerala's version is still being analysed, but Nameer says some surprises are already evident. "The distribution and range of several species is different from what's mentioned in the popular Birds of South Asia guide by Pamela Rasmussen and John C. Anderton," he says.

With the grids in place, volunteers trained, and surveys planned every five years, the atlas will only get richer with time. It will show how migratory patterns change, why some birds favour certain habitats and how an endangered species is faring. And as Mysuru, Pune and Coimbatore keep updating their own atlases, all developed with Bird Count India since 2014, it will be possible to compare and track flying patterns in a way we haven't yet.

Nameer and his team will be out with an analytical report in January. Meanwhile, you can access the atlas for free on the India Bird Count site. Don't forget to look up.



ILLUSTRATION: MOHIT SUNEJA