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Study identifies Mangar forests as crucial bird habitat, calls for increased research and conservation

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A new study has found that the Aravalli forests in and around Faridabad's Mangar village have become a crucial habitat for birds, recording the presence of 219 species in a 17 square kilometre area. Experts said the degree of biodiversity was comparable with that of other Aravalli forests in the National Capital Region (NCR), such as the Aravalli Biodiversity Park in Gurugram or the Asola Bhatti wildlife sanctuary in Delhi.

Findings of the study, conducted by the Centre for Ecology Development and Research (CEDAR), validates the Haryana government's 2016 decision to notify the Mangar Bani hill forest and surrounding areas as a "no construction zone" while providing a strong basis for ramping up research and conservation efforts in the area.

The Mangar Bani (or sacred grove) is widely regarded as the last remaining patch of native, old-growth Aravalli vegetation in Delhi-NCR, but does not have the tag of a deemed forest, as per Supreme Court orders. As such, the region has not been centrally notified as a forest under the Indian Forest Act, despite performing the ecological functions of one.

"Our report is based on the first systematic survey of the birds of Mangar. The forest and surrounding landscape have not been comprehensively studied despite being a popular birding destination for nearly a decade. Our findings are significant because they demonstrate the conservation value of Mangar forests, using birds as biological indicators. The forests in this area do not have strong legal protection and our work will hopefully encourage steps in the right direction," said Misha Bansal, project fellow at CEDAR, who led the study.

Based on a year-long field survey conducted in 2019-20, in addition to five years worth of data taken from eBird (a citizen-science initiative which maintains a repository of bird sightings globally), Bansal and other members of the CEDAR team arrived at some key findings to establish the area's ecological significance.

For instance, Mangar was found to provide a breeding habitat for summer migrants such as the Indian pitta and Indian paradise flycatcher. Both species are "tropical dry forest specialists", meaning that they are particularly suited to native Aravalli habitats.

Several other birds that are not so easily seen in Delhi were also found in the study area, which comprised not only the Mangar Bani (about 2.66 square kms) but also the surrounding forests, fields, plantations, village settlements, water bodies and old mining sites within the revenue boundaries of Mangar village.

These species include the grey-bellied cuckoo, common rosefinch, crested bunting Tickell's blue flycatcher, and Eurasian wryneck.

Researchers also noted that five nationally endangered raptor species, which are red-listed as endangered by the International Union for Conservation of Nature, have been seen in Mangar -- including the king vulture and Egyptian vulture.

Moreover, six bird species whose populations are believed to be in national decline (according to the recent State of Indian Birds 2020 report) were found to be "thriving" in the Mangar landscape. These include the yellow-crowned woodpecker and short-toed snake eagle, among others. "Our study thus suggests that the Mangar landscape is a crucial habitat for birds of the Northern Aravallis of Haryana. The diversity of birds indicates good quality forest and other resources available for birds," said the report. This claim is bolstered by the abundance of 27 "tropical dry forest specialist" species of birds, which are particularly suited to the local environment.

Such birds make up 12.5% of Mangar's bird fauna, and are no longer sighted frequently in Delhi. This is partly because native scrub forest habitats are now found in only a few sites across NCR, the report explained. The authors also noted: "Most of the recorded dry forest specialists occur most abundantly in Mangar landscape in comparison with three other forest habitats in Delhi-NCR. Further, the recorded forest specialists are overall rare in Delhi-NCR area (such as Indian pitta), and one species (brown-capped pygmy woodpecker) is found only in Mangar landscape." The higher frequency of dry forest specialists in the area, the researchers said, was perhaps the strongest bioindicator of ecological health in the region. "These birds are mainly insectivores (feed on insects), which in turn thrive only where the habitat is moist and well-vegetated. The presence of sufficient water in the bani, along with a range of microhabitats that the forest provides are creating conditions which allow for multiple specialist species to thrive," said Ghazala Shahabuddin, senior fellow at CEDAR and one of the study's authors.

Despite the report's positive findings, researchers said Mangar's potential as a biodiversity hotspot remains uncertain. " Despite the report's positive findings, researchers said tMangar's potential as a biodiversity hotspot remains uncertain. "There are not enough legal safeguards for the Aravalli range in Haryana which also apply to the Bani. Since Mangar Bani is in the middle of a densely urbanised region, the anthropogenic stress on this ecosystem is quite immense. There needs to be a scientific management plan to guide its future conservation," added Shahabuddin, reiterating a point made in the report.

When asked what degree of conservation would be apt for Mangar's forests, she said: "The typical approach of establishing a sanctuary under the Wildlife Protection Act would be inappropriate here, apart from creating resistance locally. Instead, we should recognise the cultural heritage of the Gujjar community, which has so far protected the forest and coexisted with wildlife. Instead, we may consider notifying the area as a Biodiversity Heritage Site, which would allow a range of ownership patterns within it, including private, village commons and forest land but prevent harmful development activities." This view was echoed by Sunil Harsana, a researcher and Mangar resident, who also authored the study. Harsana said Mangar's "no construction zone" tag offers only "weak protection" to the area. Unlike other mountainous ecosystems in India, such as rainforests of the Eastern Himalayas or the Western Ghats, the Aravallis of Haryana remains extremely accessible to real estate development, illegal mining, and land grab.

"Our study shows that dry tropical forests can harbour rich biodiversity, but they are also among the most endangered habitats in India because of how accessible they are. Banning construction in the bani is a good first step, but we need more comprehensive reforms for the future. There is also an abundance of mammalian wildlife in the area in addition to birds. The entire ecosystem requires protection. Community support and construction bans will not be enough," Harsana said.

Source: https://www.hindustantimes.com/cities/gurugram-news