

In this issue

National Geospatial Policy

Survey of India database

As per the National Geospatial Policy and the new geospatial guidelines, Indian users can procure geospatial data from the Survey of India. Besides the Government, which depends on the use of geospatial technologies for its programmes and schemes, academia, researchers, industry, NGOs and even citizens can benefit.

However, geodetic data – horizontal and vertical position, gravity, geoid model and elevation – of various locations have been collected for decades now, using different technologies and techniques. It is, therefore, difficult to reconcile the differences in quality and resolution of the data, without metadata, points out a General Article on **page 18** in this issue.

Moreover, the reference frames used for data collection are also different. The use of data collected using the Geodetic Reference System 1980 or the World Geodetic System 1984 may become inaccurate in time because of tectonic plate movements. For the Indian landmass, Everest could be a better frame of reference.

The aimed at accuracy is one metre for horizontal and three for vertical or elevation data. As more ground control points are being set up, there is an urgent need to avoid duplication in geospatial data collection and to maintain consistency in processing. Researchers may collect data of any quality or resolution, but must refer to the Survey of India database, urges the General Article.

Indian Giant Squirrel

Sex-biased dispersion

The Indian giant squirrel, *Ratufa indica maxima*, found in the rainforests of the Western Ghats, are solitary animals, eating mostly leaves and, at times, fruits. They construct several nests within their home ranges for resting,

carrying for their young and for hoarding food. Due to deforestation and habitat fragmentation and hunting, their population has been continuously declining. The males of the species disperse more than the females and this dispersion bias influences population dynamics. This may put the population at further risk.

So researchers examined differences in habitat preferences between the sexes in the Nelliampathy Reserve Forest, Palakkad district, Kerala. Between November 2017 and January 2018, they identified 25 males and 72 females and recorded climatic factors, land use, slope, elevation, distance from rain-forest and distance from urban settlement to model habitat suitability for male and female Indian Giant Squirrels.

In a Research Article in this issue, they report the results. Turn to **page 66**.

White-rumped Shama

Song characteristics

The white-rumped shama, *Copsychus malabaricus*, is a small, shy passerine bird. Males have glossy black plumage, a chestnut belly, white rump and long tail. Females are greyish-brown and slightly smaller. During the breeding season from April to June, the males produce rich and melodious songs. They can even imitate other bird songs.

Since they inhabit dense forests and are strongly territorial, they must be able to distinguish the spectral features of the songs to maintain pair-bonds, to recognize and deter rivals. Researchers from Dehradun recorded the songs of 22 males in their native habitat, near the Colonel Sher Jung National Park, Himachal Pradesh. During April and May 2021, they recorded a total of more than 200 songs from these birds and noted the behaviour and the context of the singing birds.

Between 8 and 11 in the morning, the males burst out in song bouts ranging from 1 to 7 minute durations. The

songs comprised of 2–5 types of strophes of different durations from less than a second to nearly 7 seconds. The strophes themselves were made up of 3–13 elements.

The maximum frequency, range of frequency, strophe duration and the number of elements per strophe were the most distinguishing variables that characterised individual birds. The minimum frequency, dominant frequency, song rate and type of element per strophe also seemed to play a role. Besides spectral variables, temporal variables also play a crucial role in making the individuals distinctive.

The research article on **page 59** fills a part of the gaps in the study of the songs of the white-rumped shama.

Ethnic Food Festival

Mamani, Ladakh

In Ladakh, during winter, the average temperature ranges between -20°C and -30°C . The end of the harsh winter, therefore, is a reason to rejoice, irrespective of religion. People in villages there prepare traditional dishes and serve them to other villagers in open areas. Mamani, the ethnic food festival of Ladakh, continues for two to four days. In some villages, children go around to collect money from households to prepare a feast in the evening.

How did the tradition come into being? What type of dishes do the people there prepare for the occasion? What variations in the tradition are to be found in the region, between religions, between villages? How can we leverage on this festival to improve local harmony, to attract tourists and to increase prosperity in the region?

A Research article in this issue explores these questions. Flip to **page 73** for details.

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