



Jerdon's Courser *Rhinoptilus bitorquatus*, endemic to southern India, is mainly known from Andhra Pradesh. It has an extremely limited geographical range, being known from the Godavari River Valley near Sironcha and Bhadrachalam, and from the Cuddapah and Anantapur areas in the Pennar Valley. A ground-dwelling nocturnal bird, it was first recorded in the mid 19th Century. Subsequently, it was considered extinct for more than 80 years, before being rediscovered in 1986 by the BNHS scientist. Since then, it has been seen only in a few restricted areas of scrub jungle in Cuddapah district, Andhra Pradesh. Jerdon's Courser is one among the eight species in India, which are listed as critically endangered by BirdLife International.

As a part of Bombay Natural History Society (BNHS), Royal Society for the Protection of Birds and University of Reading Project, funded by the Darwin Initiative, we have studied the Jerdon's Courser for the last 3 years in the Sri Lankamaleswara Wildlife Sanctuary, Andhra Pradesh. The main objectives of this project were to develop a survey method to find Jerdon's Coursers in new areas, and to describe their habitat requirements. These birds are difficult to spot as they are nocturnal and inhabit a wooded habitat. Traditionally they were searched for during night-time, in a suitable habitat, by scanning the ground using a torch with a buzzer. Though night search's are successful, Jerdon's Coursers can be detected only once in several hours of searching, limiting the usefulness of this method. These birds are very elusive, and so we innovated a method for detecting their presence. Five-metre long tracking

# Jerdon's Courser

## — A conservation approach

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Clearing of land for sweet lime cultivation has caused drastic loss of the Jerdon's Courser habitat

strips of fine-grained soil about 2 cm thick were laid in known Courser habitat. Automatic cameras placed at the end of some of these tracking strips, helped to identify the bird that had left footprints on the soft strips. We could soon distinguish Jerdon's Courser footprint from that of the other birds. In areas where the Courser was known to occur, its tracks were recorded, on an average, once in 30 nights. This meant that if we checked a regular square grid of 15 strips for about one month

we were most likely detect the Courser, if it was present.

Soil strips were deployed in twenty blocks in the scrub jungle in and around the Sanctuary. Each block had 15 to 20 soil strips, placed on a square grid 50 m or 100 m apart. Jerdon's Courser footprints were detected in 24 tracking strips. Apart from the known area, where it was repeatedly seen since its rediscovery in 1986, the Jerdon's Courser was detected in six new localities. Whilst three blocks

with new records are within 1 km of the previously known site, the other three are 15, 6 and 4 km away from previously known Jerdon's Courser site, and one record is way outside the Sanctuary border.

The Jerdon's Courser was observed to prefer areas where the density of large (> 2m tall) bushes ranged from 300–700/ha and where the density of smaller bushes was less than 1000/ha. Hence, clearing of scrub forest, and grazing by livestock in and around the Sanctuary area are likely to cause deterioration of the Jerdon's Courser habitat.

Nearly 332 ha of scrub jungle have already been cleared for farming in recent times around the Sanctuary. Of which, 85 ha were potentially suitable for the Jerdon's Courser. All these clearances are taking place near (less than 1 km) our



recent Jerdon's Courser records. By analyzing the satellite imagery of the study area, we could tell that most of the potentially suitable habitat of the bird was present at the periphery and well outside the eastern part of the Sanctuary area. Absence of Jerdon's Courser records does not imply absence of the bird, as most of the areas outside the Sanctuary have not been surveyed yet. So, it is imperative to protect the potentially suitable habitat outside the Sanctuary.

Rapid replacements of forested landscapes by cultivated lands along with the change in cropping pattern has deteriorated the Jerdon's Courser's habitat. Major crops of this place were paddy, cotton and sunflower. But in recent times, these have been replaced by sweet lime and lemon farms as they need relatively less maintenance, and are lucrative. This has resulted in the clearing of the scrub jungle areas outside the Sanctuary.

Concern over the habitat destruction in and around the Sri Lankamaleswara Wildlife Sanctuary was put forward to the Andhra Pradesh Forest Department. It was suggested that declaring the potentially suitable habitat outside the Sanctuary as "Conservation Reserves" would prevent or reduce threats in future. The BNHS needs to work along with the Andhra Pradesh Forest Department and with the help of local communities and stakeholders to achieve this. Unless we consider this seriously, it may not be possible to prevent further loss of the Jerdon's Courser habitat.

Typical Jerdon's Courser habitats, where transects were laid for studying, (above) are threatened by the changing land use pattern

