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DWINDLING STATUS OF RAREST BIRD JERDON'S COURSER (*RHINOPTILUS BITORQUATUS*) OF ANDHRA PRADESH AND IT'S CONSERVATION

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ABSTRACT

Jerdon's Courser (*Rhinoptilus bitorquatus*) is a nocturnal cursorial bird found only in the State of Andhra Pradesh, India and is classified as Critically Endangered (CR) by the International Union for Conservation of Nature (IUCN). The species was believed to be extinct until it was rediscovered in 1986 near Reddipalli village, Cuddapah District of Andhra Pradesh, India. The site where it was rediscovered was designated as the Sri Lankamaleswara Wildlife Sanctuary. The species is under great pressure from unsustainable development and management practices. This combination of a lack of information on the Jerdon's Courser, coupled with increasing pressure on its habitat, has prompted stakeholders to devise a Species Recovery Plan (SRP). The main purpose of the SRP is to secure the long-term survival of the Jerdon's Courser. This paper focuses on the participation of inputs from a wide range of stakeholders including the government, NGOs, national and international scientists and civil society. It is therefore a very inclusive and realistic document. This SRP will serve as a reference for conservation managers, policy-makers, researchers, decision-makers and form the basis of future conservation actions.

Keywords: *Jerdon's Courser, Rarest Bird, Rediscovered, Cuddapah, Andhra Pradesh, Recovery Plan, Government, Future Conservation*

INTRODUCTION

The study of birds in India received a great impetus with publication of Jerdon's *et al.*, (1862-1864) 'Birds of India' and later on by work of Baker *et al.*, (1922-1930 and 1932-1935); Jerdon's Courser. *Rhinoptilus bitorquatus* is a nocturnal cursorial bird and one of the world's rarest birds found only in Andhra Pradesh, India.

Jerdon's Courser was believed to be extinct because none was recorded after 1900 until the species was rediscovered in 1986 near Reddipalli village, Cuddapah District of Andhra Pradesh, India (Bhushan *et al.*, 1986).

The site where it was rediscovered was designated as the Sri Lankamaleswara Wildlife Sanctuary. Indian Courser has been described as one of the attractive birds of India.

The species has been also mentioned in the cultural notes because of its behavior (Pande *et al.*, 2003; Pande *et al.*, 2003). Mostly it is found in arid and semiarid areas (Ali and Ripley, 1998).

This poorly known species qualifies as Critically Endangered as a result of its single, small, declining population, which is threatened by the exploitation of scrub-forest, livestock grazing, disturbance and quarrying.

Taxonomy

Taxonomy Jerdon's Courser is the member of the order Charadriiformes. It belongs to the family Glareolidae and further classified into Subfamily Cursoriinae (Maclean, 1996).

In India, two species of Cursorius courser occur, the Cream-coloured courser *Cursorius cursor* and Indian Courser *C. coromandelicus*; and a single species of *Rhinoptilus* courser, Jerdon's Courser *Rhinoptilus bitorquatus* (Rasmussen and Anderton, 2005).

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Identification



Jerdon's Courser (*Rhinoptilus bitorquatus*)

27 cm. Unmistakable, compact courser with two brown breast-bands., has shortish, black-tipped yellow bill, mostly blackish crown, broad buffish supercilium and orange-chestnut throat patch. In flight, shows mostly black tail and white patch near tips of black primaries.

Distribution and Population

Rhinoptilus bitorquatus is a rare and local endemic to the Eastern Ghats of Andhra Pradesh and extreme southern Madhya Pradesh, India (Birdlife International, 2001). Historically, it was known from just a few records in the Pennar and Godavari river valleys and was assumed to be extinct until its rediscovery around Lankamalai in 1986. It has since been found at six further localities in the vicinity of the Lankamalai, Velikonda and Palakonda hill-ranges, southern Andhra Pradesh, with all localities probably holding birds from a single population, the majority of which are contained within the Sri Lankamaleswara Wildlife Sanctuary. Two individuals were sighted in 2009 in the Cudaapah District of Andhra Pradesh, the first confirmed sightings for several years (Birdlife International, 2009). Up to 60 camera traps have been deployed since 2010, but these had not detected any birds by 2012 (Chavan and Barber, 2012). DNA analysis of an egg held at the University of Aberdeen's Zoology Museum in 2013 showed that it was the first known egg of this species; the egg is thought to have been taken in the vicinity of the Kolar Gold Fields, east of Bangalore, in 1917 (University of Aberdeen, 2013). Between 1986 and 1995, there were eight sightings of the species in the Lankamalai area with a maximum of six birds seen on a single night (Bhushan, 1992, 1995). This species is suspected to have declined at an unquantified rate over the last ten years, owing to unauthorised progress on the Telugu-Ganga canal and additional habitat loss and degradation outside Sri Lankamaleswara Wildlife Sanctuary as a result of an unfavourable grazing regime.

Ecology

Habitat Jerdon's Courser frequents dry rocky undulating ground with a thin woodland or scrub cover, and although it was regarded as a "mountain form of *Cursorius*" by Jerdon (1862–1864) it was never seen "on hills" by Blanford (1895–1898). The rediscovered birds were found in bare grassless patches amongst bushes in foothill scrub, where the vegetation was made up of both thorny (mainly *Acacia*, *Ziziphus* and *Carissa*) and non-thorny scrub (mainly *Cassia*, *Hardwickia*, *Dalbergia*, *Butea* and *Anogeissus*) jungle (Bhushan, 1990). Sightings in 1994/1995 in Sri Lankamaleshwara Wildlife Sanctuary were close to small water bodies in undulating grasslands with thin thorny scrub (Samant and Elangovan, 1997). Food Details are not known; it is presumably insectivorous like its congeners. Breeding Birds obtained in March and May were not breeding, but a male collected in June had enlarged gonads and may have been breeding (Baker, 1922–1930). The distribution of Jerdon's Courser *Rhinoptilus bitorquatus*: (1) Sironcha; (2) Bhadrachalam; (3) Udayagiri hill range; (4) Anantapur; (5) Lankamalai; (6) Cuddapah; (7) Velikonda

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Wildlife Sanctuary; (8) Reddipalle. Historical (pre-1950) Recent (1980–present). *Rhinoptilus bitorquatus* 1456 Threatened birds of Asia repeated by Baker (1922–1930) and Ali and Ripley (1968–1998) involving a clutch of two yellow eggs laid on the ground in thin scrub jungle. Migration Local movements, if any, are not known. However, trappers in Sri Lankamaleshwara Wildlife Sanctuary have reported that the species inhabits hills during the monsoon, and foothills for the rest of the year (Samant and Elangovan, 1997).

Threats

Its habitat is becoming increasingly scarce and fragmented. It is difficult to identify specific threats, although it is well known that the habitat is becoming increasingly scarce and fragmented.

1). The construction of the Somasila Dam, construction of the Telugu-Ganga Canal in Cuddapah District (Jeganathan and Rahmani, 2006)

2) The dependence of the settlers on the area for resources may pose a serious threat to habitat through fuel wood collection and livestock grazing, and to the birds themselves through increased disturbance (Jeganathan *et al.*, 2008; Anon *et al.*, 2006),

3) In addition, extensive quarrying of the hills in the area was found to be destroying the habitat (Bhushan *et al.*, 1992, 1995).

4) Current Threats Scrub jungle clearance for farming and plantations and development projects in and around the protected areas are the main and best documented threats to the Jerdon's courser.

Other, less well documented, threats include illegal trapping of birds. Ground surveys and remote sensing studies both show that there has been substantial clearance of scrub jungle near the boundary of the Sri Lankamaleshwara Wildlife Sanctuary, including areas from which there are recent records of Jerdon's courser (Jeganathan *et al.*, 2006; Senapathi *et al.*, 2007). Inside the Sri Lankamaleshwara Wildlife Sanctuary, developmental activities such as construction of check dams, trenches and establishment of exotic plantations have caused loss and degradation of scrub jungle. In 2008 the Supreme Court, having already halted construction work, approved a new route avoiding the remaining suitable habitat (BirdLife International, 2008). Despite this, the remaining habitat is still under threat due to the expected increase of agriculture around the reserve as a result of the construction of the canal (Jeganathan *et al.*, 2008). The species is listed as Critically Endangered in the IUCN Red List (IUCN, 2010). The Jerdon's Courser is listed under Schedule I of the Indian Wildlife (Protection) Act 1972, and is considered a priority species under the National Wildlife Action Plan (2002 – 2016) of the Government of India (Government of India, 2002). It has been identified by the Government as one of twelve species to be included in the Integrated Development of Wildlife Habitats programme (11th 5 year plan of the Government of India).

Conservation

1) The local Yanaadi community have been employed to try to locate it.

2) The Sri Lankamaleshwara Wildlife Sanctuary and Sri Penusula Narasimha Wildlife Sanctuary have been declared in the Lankamalai, Veliconda and Palakonda hill-ranges as a direct result of its rediscovery.

3) The Telugu-Ganga canal, which would have passed through one of these protected areas, was realigned in response to lobbying that it would fragment habitat, but in 2005 unauthorised work began again on the canal. In February 2006, India's Central Empowerment Committee ruled in favour of a precise route for the canal that will entirely avoid courser habitat (Jeganathan and Rahmani, 2006; Anon, 2006), and 1,200 ha of land was given in compensation to expand the Sri Lankamaleshwara Wildlife Sanctuary (BirdLife International, 2009).

4) In 2008, a workshop was held to draft a Species Recovery Plan. The identified priorities included: to ensure protection of the species's habitat; to map potential habitat of the species within scrub forest using remote sensing; to capture and radio-tag individuals; to increase efforts to identify new sites that may host the species and to raise awareness of the species (Chandrasekhar *et al.*, 2008).

5). A final draft was submitted to the State Forestry Department and National Government for endorsement (Barber *et al.*, 2009, 2010), and the final version was published in November 2010 (Anon *et al.*, 2010). Also, survey methods have been developed to conduct night-time listening surveys for identifying new populations and studying existing ones (Jeganathan *et al.*, 2004). Expand conservation

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awareness programmes and promote alternative livelihoods in and around areas supporting populations to minimise habitat alteration, disturbance and trapping (Anon *et al.*, 2006). Continue to train forest department staff, local communities and volunteers to carry out surveys for the species (Anon *et al.*, 2006).

CONCLUSION

Jerdon's Courser (*Rhinoptilus bitorquatus*) is a nocturnal cursorial bird found only in the State of Andhra Pradesh, India. It is one of the world's rarest bird species and is classified as Critically Endangered (CR) by the International Union for Conservation of Nature (IUCN). It has been rediscovered IN 1986 and records it seeing is up to 2009, but after that it is difficult to find this species. The conservation methods proposed and implemented by the international and national and government and NGO's along with the stakeholders will help in the species recovery, let us hope that this species will survives and see in our Andhra Pradesh.

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