

JERDON'S COURSER

Rhinoptilus bitorquatus

Critical ■ C2b

Endangered □ D1

Vulnerable □ B1+2c



This recently discovered and poorly known species qualifies as Critical as a result of its single, small, declining population, which is thought to be threatened by exploitation of scrub-forest, livestock grazing, disturbance and quarrying.

DISTRIBUTION Jerdon's Courser (see Remarks 1) is endemic to southern India, where it is principally known from southern 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 valley of the Pennar river (Ali and Ripley 1968–1998, Ripley and Beehler 1989a). Although it must have once ranged more widely at least between these regions, there have not been any records from the intervening area. Jerdon (1862–1864) believed that its range may be spread “through many parts of Balaghat [south-central Madhya Pradesh] and Mysore [Karnataka]”, but at present, over 120 years after this notion was floated, it remains known only from the vicinity of the Lankamalai, Velikonda and Palakonda ranges in the Pennar valley, Cuddapah district, Andhra Pradesh (Bhushan 1995). The species is listed without comment from the immediate vicinity of Madras (Chennai), Tamil Nadu (Dewar 1905), a record that is best treated as unconfirmed. Records are from:

■ **INDIA** ■ **Maharashtra** 24 km east of **Sironcha**, near the Godavari river, three birds, undated (Blanford 1867a, 1869), some time in the 20-year period before 1935 (D'Abreu 1935; see Remarks 2);

■ **Andhra Pradesh Bhadrachalam**, near the Godavari river, March 1871 (two males in BMNH, Blanford 1895–1898; see Remarks 3); **Udayagiri hill range**, east of the Pennar valley, unspecified year (Bhushan 1986a,b); unspecified localities, west of **Anantapur**, two pairs in June 1900 (Baker 1922–1930), the last sighting before rediscovery (Ali 1977b); **Lankamalai** (Sri Lankamaleshwara Wildlife Sanctuary; see Remarks 4), Cuddapah, three birds in January 1986, one bird in September 1986 (Bhushan 1986a,b), December 1994 to March 1995 (Samant and Elangovan 1997), one bird in November 1996 (F. R. Lambert and J. C. Eames verbally 1997), one bird in February–March 1997 (R. F. A. Grimmett verbally 1998), one bird in February 1998 (P. J. Hines *in litt.* 1998), and seen at this site by many other observers; around **Cuddapah**, c.1848 (Blyth 1848, Jerdon 1862–1864); “off Nellore” in “hilly country above the Eastern Ghats”, c.1848 (Blyth 1848, Jerdon 1862–1864), this presumably referring not to the vicinity of Nellore itself (although see Measures Proposed) but to the Veliconda range, wherein it has been recorded at the **Veliconda Wildlife Sanctuary**, unspecified year (Bhushan 1995).

Apart from the Lankamalai area where it was rediscovered, the species has been seen in six localities south of Lankamalai and the Pennar river (Bhushan 1995). These areas lie within the Veliconda hill ranges, east of Palgonda and Sokiachalam hill ranges (Bhushan 1995). However, the scatter of recent records as indicated on the map may be too wide: the Udayagiri and Veliconda records may not be well founded, but in any case all certain recent records come from an area of c.2 km in diameter at Lankamalai (R. E. Green *in litt.* 2000).

POPULATION Very few individuals have been recorded so far, mainly owing to its nocturnal, shy and retiring habits. Blanford (1895–1898) came across pairs of birds twice and once he sighted three birds. D'Abreu (1935) called it a “rare bird found at Sironcha”. 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 1995). However, it may occur in much higher densities than currently known.

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), a paradox explicable by the suggestion of mild seasonal vertical movements (see Migration). 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 1986a,b, 1990). This scrub was generally 2–4 m tall with *Hardwickia* around and above 5 m tall (Bhushan 1990). The preferred habitat was apparently a "thin strip" of scrub forests between denser forests and grazed or cultivated areas (Bhushan 1990). Over the day birds rest up amongst thorn scrub bushes such as *Carissa* (Bhushan 1986a,b). Sightings in 1994/1995 in Sri Lankamaleshwara Wildlife Sanctuary were close to small waterbodies in undulating grasslands with thin thorny scrub (Samant and Elangovan 1997).

Food Details are not known; it is presumably insectivorous like its congeners (see, e.g., del Hoyo *et al.* 1996).

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). There is a record



The distribution of Jerdon's Courser *Rhinoptilus bitorquatus*: (1) Sironcha; (2) Bhadrachalam; (3) Udayagiri hill range; (4) Anantapur; (5) Lankamalai; (6) Cuddapah; (7) Veliconda Wildlife Sanctuary; (8) Reddipalle.

○ Historical (pre-1950) ● Recent (1980–present)

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; recent local reports also suggest that the clutch consists of two yellow eggs laid on stony open ground (Samant and Elangovan 1997).

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 The major threat to habitat of this species was at one time thought to be the collection of minor forest produce (such as fuelwood, timber, thatch and fencing or construction materials) by local villagers (Bhushan 1990); but see Measures Proposed. Subsequent to the construction of the Somasilla dam, 57 villages were displaced and relocated within the hitherto inaccessible Lankamalai, Palgonda and Seshachellam areas; the dependence of the settlers on the Lankamalai area for resources may pose a serious threat to the habitat (Bhushan 1995). In addition, extensive quarrying of the hills in the area was found to be destroying the habitat (Bhushan 1995).

MEASURES TAKEN The members of the Yanaadi community, who played a major role in the rediscovery of the species, were employed by the State Forest Department to locate it in other habitats and localities in the Eastern Ghats (Bhushan 1995); the results appear to be unknown. The Lankamalai (500 km²) and the Veliconda hill range (1,300 km²) areas have been declared as wildlife sanctuaries (Bhushan 1995). As a result of these measures, the Andhra Pradesh government realigned the course of the Telagu-Ganga canal, which would otherwise have passed through crucial habitat in Veliconda Sanctuary (Bhushan 1992, 1995). To the south of the Sri Lankamaleshwara Wildlife Sanctuary, 500 km² of the Palakonda forests have been gazetted as Sri Venkateswara National Park and Wildlife Sanctuary (Bhushan 1992). In early 2001 a joint BNHS–RSPB study of the species made preliminary investigations of techniques in the wildlife sanctuary (R. E. Green *in litt.* 2001).

MEASURES PROPOSED Concerted efforts are needed to confirm the persistence of the species at known or suspected sites (the region of Nellore was, for example, indicated by locals as still holding it in the mid-1990s, with specific claims from Chilkalamarri and Gonapalli: Samant and Elangovan 1997) and to identify new localities in India, as the species may exist in suitable habitat over a much larger geographic region. Remote sensing would prove useful in characterising the species's present habitat and identifying localities with similar characteristics. Once suitable areas are identified, extensive ground-truth surveys could pinpoint territories through suitable survey techniques; amongst the most important would be the use of tape playback, once the voice of this species has properly been identified and recorded (see Remarks 5). Another survey method under development is the use during the dry season of prepared strips of sieved and smoothed fine soil, which retain the detail of bird footprints for several days: automatic camera surveillance of these strips has verified the footprints of the species and indicates that they are distinguishable from those of other bird species in the area (R. E. Green *in litt.* 2001). Ripley and Beehler (1989a) suggested that local people in areas where the species may occur should be offered bounties for reporting sightings of live, free-ranging individuals, with all such reports being carefully evaluated by well trained forest/wildlife officials in the region. Several large areas of suitable habitat within the range of the species should be earmarked for total protection, even without reliable sightings having been made (Bhushan 1990). On a management basis, extraction of fuelwood and other minor forest products from known sites should be monitored and controlled (Bhushan 1990).

However, an important measure must be an intensive study of the ecology of this species, the better to understand the real constraints acting upon it. In this regard, research is required

to assess the influence of grazing by domestic buffalo and of wood-cutting on the local habitat, since it is possible that they may in fact be beneficial at moderate levels, by maintaining the open nature of the forest (R. E. Green *in litt.* 2001).

Ripley and Beehler (1989a) also proposed captive breeding as a mitigation, hatching and rearing young from wild-laid eggs in nests made in confinement by Heuglin's (or Three-banded) Coursers *Rhinoptilus cinctus*. This is, however, unnecessary at this stage: detailed biological study of the species is a far higher priority, so that constraints on the wild population can be identified and countered through *in situ* management. In addition, the extreme difficulty of finding nests of this species (Bhushan 1990) suggests that finding eggs for captive breeding would be a difficult proposition.

REMARKS (1) The validity of the genus *Rhinoptilus* was reaffirmed by Ripley and Beehler (1989a) on the basis of throat pattern and nocturnal behaviour. Jerdon's is the only Asian member of the genus.

(2) D'Abreu (1935) made it plain that he was not simply repeating the earlier records: his list was one of birds seen, collected or otherwise heard of directly, and records not his own were included in square brackets.

(3) The elusiveness of the species is brought out in the following passage, which may yet be useful as a reference for further research, from Whistler and Kinnear (1931–1937):

I scoured the country for miles both at Borgampad and at Nelipaka, and investigated every likely patch in search of this elusive creature; my shikaris (urged by promises of reward) and myself, were constantly on the look-out for it all through my stay at these two camps, but without success. Borgampad and Bhadrachalam (near where Blanford obtained his specimens) are on either bank of the Godavari River and lie almost directly opposite each other. It is therefore likely either that the birds move about with the seasons and I was looking for them at the wrong time, or that they have disappeared from the face of the earth altogether! In spite of special effort, the Eastern Ghats Survey also failed to come across this species in Cuddapah and Nellore (where Jerdon first discovered it) or indeed anywhere else in the areas worked by them. It would be interesting to know what the last authentic record of its being shot or seen is.

The Telugu name given in the Fauna, namely "*Adava-wuttu-titti*" was as great a mystery to the local Telugus as the bird itself, and one would like to know how it was come about!

(4) The record from foothills just west of Reddipalle in May and September 1986 (Bhushan 1986a,b) is in fact also from this sanctuary (R. E. Green *in litt.* 2001).

(5) Its call is given as a "plaintive cry" (Ali and Ripley 1968–1998) or described by locals as "very sad; a single note and very soft" (Bhushan 1990).