

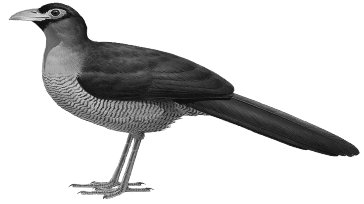
SUMATRAN GROUND-CUCKOO

Carpococcyx viridis

Critical ■ **D1**

Endangered —

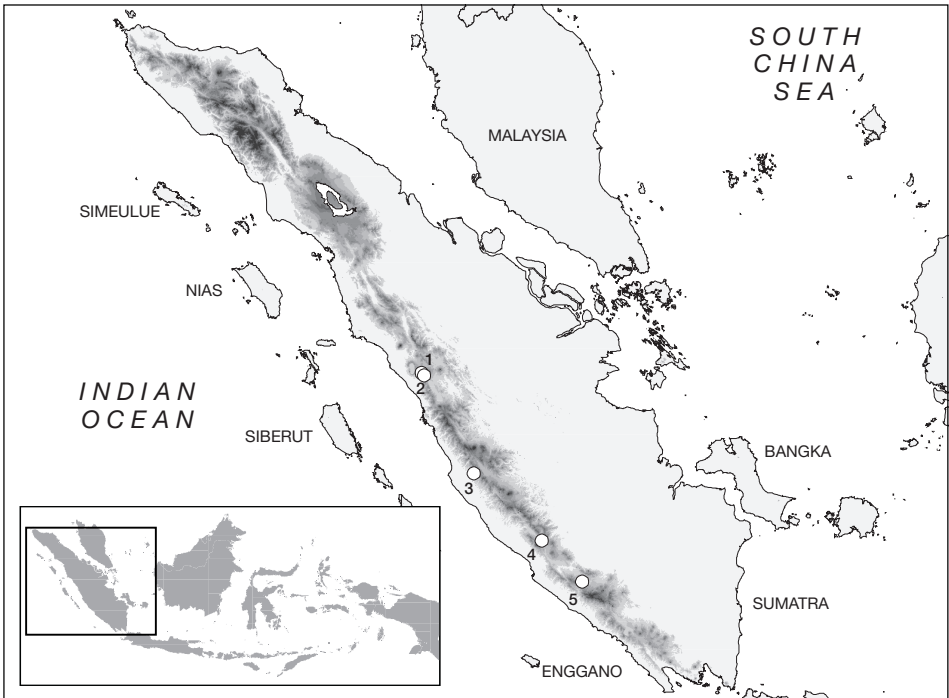
Vulnerable —



This terrestrial forest bird has not been recorded for almost a century, nor apparently is it familiar to experienced hunters in Sumatra. Its population is thus quite possibly tiny, and as such it qualifies as Critical.

DISTRIBUTION The Sumatran Ground-cuckoo (see Remarks 1) is confined to the island of Sumatra, Indonesia, where all records have come from the Southern Barisan Mountains in the southern half of the island. Records, given in full in Collar and Long (1995) but repeated with original sources here, are based on eight museum specimens (see Remarks 2), three of which simply specify “Sumatra” and five of which indicate:

■ **INDONESIA Sumatra** ■ **Bengkulu Gunung Singgalang** (the type locality) at Bella Vista, July 1878 (Salvadori 1879; “juvenile” in MSNG); ■ **West Sumatra Padang Highlands**, 1880 (juvenile in RMNH); ■ **Muara Sako**, Indrapura (by Gunung Kerinci; see Remarks 3), 300 m, September 1915 (Robinson and Kloss 1924a; immature female in RMNH); ■ **Rimbopengadang**, Lebong, 1,000 m, June 1916 (Robinson and Kloss 1924a; male in ZRCNUS); ■ **South Sumatra**



The distribution of Sumatran Ground-cuckoo *Carpococcyx viridis*: (1) Gunung Singgalang; (2) Padang Highlands; (3) Muara Sako; (4) Rimbopengadang; (5) Gunung Dempo.

○ Historical (pre-1950)

Gunung Dempo at the Air Njuruk (“an insignificant brook”: Robinson and Kloss 1924a), (Pasemah), Palembang, 1,400 m, August 1916 (Robinson and Kloss 1924a; male in RMNH).

In July 1999 a local guide reported seeing the species in forest above Tapan within Kerinci-Seblat National Park (D. Martyr *per* K. D. Bishop *in litt.* 1999).

POPULATION Nothing is known about the population status of this species. The fact that it has not been seen since 1916 is a clear cause of concern; on the other hand, Sumatra has endured considerable ornithological neglect throughout this century, and a close relative on Borneo, the Bornean Ground-cuckoo *Carpococcyx radiatus*, has proved to be a highly unobtrusive species (Collar and Long 1995), so it may reasonably be hoped that intensified fieldwork within the range defined under Distribution will duly relocate populations of the Sumatran Ground-cuckoo at a number of sites. It has been reported that none of the local hunters and trappers at Kerinci who recognise pictures of the area’s rare pittas has recognised the proffered picture of this species (Holden 1997); however, in 1999 at least one old poacher instantly recognised an illustration and reported seeing the species occasionally during poaching forays (F. Verbelen *in litt.* 1999).

ECOLOGY Habitat This species evidently occupies foothill and montane forest, with records from 300 to 1,400 m (see Distribution); it was described as a bird of hill country by its discoverer (Beccari 1878). Other comments made about the species in the wild are that it lives “on the ground in gallinaceous manner” (Salvadori 1879, Collar and Long 1995) in “the heavy forest” (Robinson and Kloss 1924a); the type and at least two other specimens were caught in snares (Salvadori 1879, Robinson and Kloss 1924a). Forest at the collecting locality on Gunung Dempo “was composed of very tall trees, and the undergrowth was easy to cut through”; forest at Muara Sako covered the “surrounding heights”, and Great Arguses *Argusianus argus* were numerous; and forest at Rimbo Pengadang was secondary near the road but heavy further inland, although there is no indication where the relevant specimen came from (Robinson and Kloss 1924a). There is always a possibility that the records from the hills and mountains mask the fact that the species also occurs in the lowlands, since this is the case with the Bornean Ground-cuckoo (Collar and Long 1995); and the record from Muara Sako (see Remarks 3) hints further at this. However, a poacher who recognised the species indicated that he had found it in what was interpreted to mean dark, closed-canopy areas of pristine submontane forest (F. Verbelen *in litt.* 1999).

Food Presumably the species eats small vertebrates and large invertebrates that dwell on the forest floor. The Kerinci immature had insects in its stomach (RMNH label data) and the species was characterised as feeding on insects (Robinson and Kloss 1924a).

Breeding A possible juvenile taken in July, and an immature taken in September, indicate breeding in the first half of the year.

THREATS Deforestation on Sumatra has been extensive, lowland areas suffering most acutely (see Threats under Rueck’s Blue-flycatcher *Cyornis ruecki*); however, many foothill and montane areas have also been affected, with at least a third of montane forest having been lost, and clearance continues to extend well through the existing elevational range of many species endemic to the uplands of Sumatra (“Sumatra and Peninsular Malaysia Endemic Bird Area”: see Sujatnika *et al.* 1995, Stattersfield *et al.* 1998), and is here judged to be a threat to this species and also Salvadori’s Pheasant *Lophura inornata*, Aceh Pheasant *L. hoogerwerfi*, Schneider’s Pitta *Pitta schneideri*, Graceful Pitta *Pitta venusta* and Sumatran Cochoa *Cochoa beccarii*. Already in 1913–1917 Gunung Singgalang, where the Sumatran Ground-cuckoo was first collected, had been cleared up to 1,800–1,900 m, and even above this the mountain forest had been selectively logged; conditions on the north and east slopes were particularly bad, although the south and west were still forested (Robinson and Kloss

1924a). Forest at “Air Njuruk” on Gunung Dempo appears all to have been cleared, and there may be little or no forest left on the mountain within the ground-cuckoo’s known altitudinal range (F. Verbelen *in litt.* 1999). In the great fires on Sumatra in 1997 Bukit Barisan Selatan National Park was affected at least marginally (Kinnaird and O’Brien 1998).

In 1984 Kerinci-Seblat National Park was cited as one of the 10 most threatened protected areas in the Indo-Malayan Realm, owing to illegal encroachment of farming (Thorsell 1985); in 1988 habitat below 1,900 m on Gunung Kerinci itself was disturbed, and below 1,800 m it did not exist, as a result of the “constant assault” of clearing and burning (Hurrell 1989). Nothing has changed except for the worse. Conservation initiatives in Kerinci are hampered by the logistical difficulties associated with managing a reserve of this size, compounded by the crisis of legitimacy facing the state forest regime since the fall of President Suharto’s New Order government: in the power vacuum and great political and social uncertainty that currently characterise Indonesia, networks of local exploitation interests are appropriating land and timber resources within the park, and the government currently lacks the capacity to enforce law and order in this area (P. Jepson *in litt.* 2000; see also Remarks 4). In September 1999, the area of the Padang Highlands between Padang and Bukittinggi was explored by road, and the entire area of Kerinci-Seblat National Park from Padang southwards was flown over: the conclusion was that “extensive clearance and degradation is continuing to affect all forests in the highlands, with intrusions into the park along its entire boundary wherever valleys and watercourses present access opportunities, and the entire park is subject to seemingly unrestricted logging, mainly at lower elevations, clearance for plantations and squatter settlements, poaching and illicit collection of forest products” (K. D. Bishop *in litt.* 2000). Another visitor to Kerinci-Seblat National Park also found that deforestation is taking place within its boundaries, involving agricultural encroachment by local communities and commercial logging by both semi-industrial interests (at Muara Sako) and individuals with chainsaws on an everyday basis (F. Verbelen *in litt.* 1999). Preliminary analysis of satellite imagery suggests that, while there are still some intact, inaccessible areas in the core of the park, there are new roads into the park from adjacent logging concession areas, and that the practice of stripping timber out of the park by commercial interests is on a much larger and more systematic scale than has hitherto been realised; the northern part of the Kerinci valley forest is being lost at a rate of 3% a year owing to encroachment of various kinds (F. R. Lambert *in litt.* 2000).

Hunting with air rifles is widespread in the lower forest at Kerinci, which may be a threat to the species (F. Verbelen *in litt.* 1999). Moreover, ground snares are widespread and likely to be a particular problem for it (K. D. Bishop *in litt.* 2000).

MEASURES TAKEN *Protected areas* Altogether there are 20 protected areas in the Barisan Range (Stattersfield *et al.* 1998), although some of these lie to the north of the known range of this ground-cuckoo. Gunung Singgalang is a 97 km² protection forest, but with garden (“ladang”) encroachment along the lower peripheries (SvB). Bukit Dingin/Gunung Dempo consists of c.380 km² of protection forest (SvB). One site (Muara Sako; see Distribution) at which the species has been recorded is inside or very close to a protected area, namely Kerinci-Seblat National Park, although it is not clear whether the record came from within the subsequent park boundaries or not, and in any case Kerinci continues to be modified by deforestation (see Threats).

In 1997 the government commenced the Kerinci-Seblat Integrated Conservation and Development Project (due to last until September 2002) funded by a major grant from the Global Environment Facility, aimed at tackling the threats facing the park through four integrated components: (1) park management, which focuses on planning, enforcement and interpretation; (2) village-area development, which aims to reduce the impact of communities living around and within the park; (3) biodiversity in concession management, which is

developing wildlife-sensitive management of neighbouring logging concessions; and (4) monitoring and evaluation, which tracks changes in the status of forest and key indicator species (P. Jepson *in litt.* 2000; see also MacKinnon 1997). In addition to these activities, the Fauna & Flora International Orang Pendek project has surveyed certain areas of the park and extending knowledge on the distribution and status of several threatened birds species (e.g. Holden 1997).

The admirable efforts of F. Verbelen in searching for this species, and in interviewing over 50 hunters and poachers, demonstrate the key role individual birdwatchers can play in assisting the cause of species conservation.

MEASURES PROPOSED This is a BirdLife restricted-range species confined to the Sumatra and Peninsular Malaysia Endemic Bird Area (Stattersfield *et al.* 1998; also Sujatnika *et al.* 1995). Surveys of known sites and in good forest at 300–1,400 m between sites are urgently required in order to rediscover this species and assess its conservation status and needs; such fieldwork should extend to the northern regions of western Sumatra, perhaps into the Barumon reserve of South Tapanuli, to ascertain the northern limits of this and other Sumatran endemic hill species (D. A. Holmes *in litt.* 1999). Two sites recalled by the poacher interviewed by F. Verbelen (*in litt.* 1999) are Gunung Rajah above Desa Lempur, and Lubuk Pinang, 40 km from Tanjung Pondok. A major effort is needed in Sumatra to identify and protect the lowest-lying remaining areas of hill forest, which may prove to be crucial to this species, given that the lowest elevation recorded for it was only 300 m (see Ecology). Both Gunung Singgalang and Bukit Dingin/Gunung Dempo are proposed for upgrading to reserves (D. A. Holmes *in litt.* 1999). A strict hunting ban is needed at Kerinci and Dempo (F. Verbelen *in litt.* 1999).

REMARKS (1) The recognition that the Sumatran Ground-cuckoo is a distinct species from Bornean *Carpococcyx radiatus* only occurred recently (Collar and Long 1995; hence Inskipp *et al.* 1996, del Hoyo *et al.* 1997), although an earlier but neglected assertion of its identity had been made almost a century earlier by Finsch (1898). (2) A ninth (mounted and seemingly nineteenth-century) adult specimen, unfortunately lacking data, was found during a visit to SMNS in 1997 (NJC). (3) This locality was identified by E. Jacobson as at “West Coast Sumatra”, but this was an old Dutch province name and referred to western Sumatra, not to the coastal region (D. A. Holmes *in litt.* 1999), and indeed Jacobson qualified this the site as being along a path up a valley towards Kerinci (in Robinson and Kloss 1924a); the mapping of the site as at Kerinci itself (in Collar and Long 1995) missed this information. (4) The following further information on problems at Kerinci-Seblat is all from P. Jepson (*in litt.* 2000). There is widespread encroachment, exploitation and poaching within the park’s designated boundaries. The structure, pattern and conservation impact of these activities is complex and varies depending on local characteristics of landscape, culture, and economics. For example, the lowland forest landscapes on the south-western faces of the Barisan ranges are being degraded by the confusion of boundaries with commercial logging concessions and small-scale timber extraction to feed local saw-mills located just outside the park boundaries. The middle hills of the park provide the ideal setting for growing cinnamon, while conversion of forest lands along the roads through the park is widespread and linked into influential trade chains orientated around the cities of Padang, Jambi and Bengkulu. This pressure is causing major fragmentation of the area: for example, the species-rich Gunung Tujuh massive is now isolated from the rest of the park by cinnamon plantations. Some threats are more specific in their location. A good example is the vegetable-growing business that seeks out the exceptionally fertile soils associated with volcanic lahars. Such landforms and soils are rare, but unfortunately the lower slopes of Kerinci are one such an area; as a result, there is rapid encroachment as forests are felled to grow cabbages.