

MANIPUR BUSH-QUAIL

Perdica manipurensis



Critical —

Endangered —

Vulnerable A1c,d; A2c,d; C1; C2a

This poorly known species's specialised habitat is undergoing a continuing rapid decline and severe fragmentation, pressures that are assumed to be causing a decline. In addition, there have been no confirmed records of the bird since 1932, indicating it may have a small population. These factors, combined with ongoing hunting pressures across its range, qualify it as Vulnerable.

DISTRIBUTION The Manipur Bush-quail (see Remarks 1) is distributed in the duars from West Bengal to Assam north of the Brahmaputra river (*inglisi*), and the hills south of the Brahmaputra from Assam (in Cachar) to Manipur (Ripley 1982). It has been speculated that it occurs in Bangladesh, in Sylhet district (Baker 1922–1930), and north Mymensingh, Chittagong and the Chittagong Hill Tracts (Rashid 1967; and thereafter Ali and Ripley 1968–1998, Karim undated, Khan 1982, Ripley 1982, Grimmett *et al.* 1998). However, Baker (1922–1930) merely stated that “quite possibly it is equally common in the similar immense grass areas in Western Cachar and Sylhet”, suggesting that there was no direct record of its occurrence in the country. Furthermore, given the hypothetical basis of Rashid’s (1967) information (see Remarks 2), there is no confirmed record for Bangladesh, and the species is best treated as an Indian endemic.

■ **INDIA** Acceptable records are from West Bengal, Assam and Manipur. It was also listed for the Khasia hills (Meghalaya) and Naga hills (Nagaland) (Baker 1922–1930; and thereafter Ali and Ripley 1968–1998, Ripley 1982) although there is no firm evidence for this assertion, despite considerable collecting work (by E. C. S. Baker, and later W. Koelz) in the former, and further confirmation is desirable. It was mentioned for Meghalaya without specific localities by Talukdar (1995c), presumably on the basis of historical information. It has been recorded from the eastern foothills of Manipur but not from the western side (*Stray Feathers* 9 [1881]: 461–471), although Higgins (1913a) encountered it in south-west Manipur. Records are from:

■ **West Bengal** near the Torsa river, probably observed pre-1920 (Inglis *et al.* 1920);

Alipur Duar, pairs flushed “on more than one occasion,” 1885–1886 (Thornhill 1904, specimen in BMNH);

■ **Assam Mornai tea estate**, Goalpara, March 1905 (male in AMNH), January, February, March 1906–1907 (four specimens in BNHS, Abdulali 1968–1996), February 1907 (four specimens in BMNH, IRSNB and YPM), March 1907 (four specimens in AMNH and YPM), November 1907 (female in BMNH); North Cachar Hills district, near **Baladhan**, April or May 1894 (BMNH egg data, Baker 1922–1930; see Remarks 3); Dibru-Saikhowa National Park (unconfirmed), pair reported by a guide, March 1998 (Allen 1998a); Nanga (unconfirmed), immediately south of the Brahmaputra, five, 1990s (J. Coulson *per* R. Kaul verbally 1999);

■ **Manipur** unspecified localities, Manipur valley, five, February 1899 (female in BMNH, Turner 1899), many, pre-1932 (Higgins 1933–1934); **Imphal**, undated (specimen in BNHS, Abdulali 1968–1996), and Pukhao road, 20 km north-west of Imphal, March 1906 (Powell Connor 1908); **Phalel** (Palel), April 1881 (six specimens in BMNH), this presumably one of the sites “along the bases of the Eastern Manipur hills”, pre-1881 (Hume 1888); south-west corner of Manipur valley, thus in the **Churachandpur** region, two immature males, February 1913 (Higgins 1913a).

POPULATION Estimation of the Manipur Bush-quail's population is hampered by an absence of data. Early hunting records give some indication of its historical abundance, but the cessation of these published hunting reports and the infrequency with which fieldwork is now undertaken in its range has resulted in a total lack of confirmed records since 1932.

India On the Mornai tea estate, Assam, the species was "the commonest quail", albeit "seldom seen" and "excessively local"; in March it was apparently sometimes "exceedingly plentiful", with up to eight shot in a morning (Ogilvie-Grant 1909). However, there have been no records of the race *inglisi* since the nineteenth century in West Bengal and since 1907 in Assam, and its current status is unknown.

The nominate race was originally believed to be scarce in Manipur (and possibly an "accidental straggler from further east") as only two coveys of 5–6 were found (and these in one 3 km² patch of grass on one day) during many months spent in the state, including much effort targeting similar patches of habitat in search of the species; moreover, local people were reported to be unfamiliar with it (*Stray Feathers* 9 [1881]: 461–471). Subsequently, however, a report of 80 birds shot in seven years (Wood 1899), and then 190 shot between 1910 and 1932, including 14 in March 1917, and 42 in 1918–1919 (Higgins 1933–1934), suggested that the species was native to Manipur and indeed locally fairly common. Of the 190 birds reported by Higgins (1933–1934), 93 were shot in 13 years (1920–1933) (including, however, 17 shot in one day, March 1926, and 13 shot in one day, March 1929), while the same total number was shot in only four years from 1915–1919, suggesting that the species was "getting scarcer". This decline was thought to have been a result of agricultural intensification (Higgins 1933–1934), although hunting would also seem a plausible contributory cause. Baker (1922–1930) stated that it was "not uncommon" in eastern Cachar,



The distribution of Manipur Bush-quail *Perdicula manipurensis*: (1) Alipur Duar; (2) Mornai tea estate; (3) Baladhan; (4) Imphal; (5) Phalel; (6) Churachandpur.

○ Historical (pre-1950)

near the border with Manipur. There have been no reports of the nominate race since 1932, although previous strongholds have received very little study.

Bangladesh It is unclear if the species ever occurred (see Remarks 2). However, potentially suitable habitat in Sylhet has been destroyed (Karim undated), and in the Chittagong Hill Tracts natural habitat is thought to have been largely cleared (P. M. Thompson *in litt.* 1997). Given the current shortage of suitable habitat no significant population is likely to occur (P. M. Thompson *in litt.* 1997).

ECOLOGY Habitat The ecology of the Manipur Bush-quail is poorly known, with all information from historical sources. It inhabits damp grasslands up to c.1,000 m (Ripley 1982) and has been encountered in large stretches of dense elephant grass up to 5 m tall, in grassland dominated by *Erianthus ravaneae*, and in “sun grass” (it is unclear as to which species “sun grass” refers, although it may be an *Imperata*) (*Stray Feathers* 9 [1881]: 461–471, Wood 1899, Inglis 1910). Birds were often found close to water, especially in grassland adjoining small streams and bogs, moving to grassland on higher ground when these swampy valleys became inundated during the wet season (Wood 1899, Ogilvie-Grant 1909, Higgins 1933–1934). In Manipur the species apparently shared habitat preferences with the Black Francolin *Francolinus francolinus*, Wood (1899) going as far as to state that “where one is found the other is in the locality”. Covies have been recorded feeding in the open, particularly on burnt grasslands early in the day or throughout the day in overcast weather (Turner 1899, Wood 1899, Inglis 1910). The species appears to be shy and extremely reluctant to fly, generally remaining inside dense patches of tall elephant grass (“elephant grass” being a generic term for tall grassland) (*Stray Feathers* 9 [1881]: 461–471). For these reasons it was “very, very seldom seen”, and then normally at daybreak when it ventured into shorter grass at the edges of tall grass, quickly scuttling into cover when disturbed (*Stray Feathers* 9 [1881]: 461–471). The species was usually found in groups, with group-size recorded as 4–6 birds, rising to 6–12 during March and April in the Bhutan duars (Inglis 1910), and as 6–8 birds in Manipur (Wood 1899). Females possibly outnumbered males (Inglis 1910).

Food The diet includes seeds (or “grass seeds”) and berries, roots and small insects such as ants (Inglis 1910, Baker 1922–1930). The stomachs of birds taken in Manipur contained grass seeds, wild lentils and ants along with what appeared to be the wing-cases of a beetle (*Stray Feathers* 9 [1881]: 461–471). A female kept in captivity ate various small seeds and spiders, flies, caterpillars and wasp larvae, but avoided beetles and cockroaches (Powell Connor 1908).

Breeding The nest is a simple hollow scraped in the ground, lacking any structure and sometimes with a few “oddments of leaves and grass lying in it” (Wood 1899, Baker 1932–1935). Baker (1922–1930, 1932–1935) found a nest in May in a large area of short grass (0.6 m high) on the summit of a hill surrounded by evergreen forest in North Cachar. In the Bhutan duars adults showed signs of breeding at the beginning of March, and a fully fledged juvenile was obtained on 11 January (Ogilvie-Grant 1909).

Migration Wood (1899) only saw birds “at certain times of the year, during the rains and before the jungle fires”; however, this probably relates to times when birds were more visible, rather than to migratory movements, and the view that the species is probably resident (Ripley 1982) seems sound.

THREATS Although little is known about the status of the Manipur Bush-quail, it is undoubtedly threatened by the considerable declines in the extent and quality of grassland habitat throughout its small range, compounded by high levels of hunting (R. Kaul verbally 1999). It is one of three threatened bird species that are entirely restricted to the “Assam Plains Endemic Bird Area”, threats and conservation measures in which are detailed by Stattersfield *et al.* (1998).

India Habitat destruction in Manipur has been extensive, presumably limiting the habitat available for this species to dangerously low levels (R. Kaul verbally 1999). Grassland in the Logtak lake area of Manipur has for some time been heavily cleared (Scott 1989), and the same fate has probably affected large areas of suitable habitat in the state. Grassland in the duars of West Bengal and Assam has been largely converted to tea cultivation and other agricultural land (R. Kaul verbally 1999). A more detailed account of the threats to tall grassland in India appears in the equivalent section under Bengal Florican *Houbaropsis bengalensis*.

In the nineteenth century the local Naga people were reported to trap this species in “nooses after the jungle fires”, for which reason it was known as the “Trap Quail” in the local language (Wood 1899). It was regarded as an “excellent little bird for the table” (Baker 1922–1930), a consideration which presumably increased the rate at which it was trapped and shot. It was also relatively easily hunted, as its habit of running in close groups when escaping disturbance allowed several to be killed with a single shot (Wood 1899). Hunting in its range has risen dramatically through the twentieth century in response to increases in the availability of firearms and the size of the human population (R. Kaul verbally 1999). Moreover, Manipur is a troubled border area, beset by insurgency and military activities, circumstances that have made fieldwork difficult and surveys for the species impracticable (R. Kaul verbally 1999).

Bangladesh An increasing human population has caused widespread damage to natural habitats and a loss of indigenous wildlife (Karim undated; see under Swamp Francolin *Francolinus gularis* and Black-breasted Parrotbill *Paradoxornis flavirostris*). There are now very few, if any, extensive patches of grassland in Bangladesh and any that might remain are inundated for two-thirds of the year (P. M. Thompson *in litt.* 1993). Indiscriminate killing and trapping of birds, particularly since 1947, has also depleted populations of birds in the country (Karim undated).

MEASURES TAKEN Apart from a tentative report from Dibru-Saikhowa National Park, the species is not listed for any protected area (McGowan *et al.* 1999). No other measures are known.

MEASURES PROPOSED The conservation requirements of the Manipur Bush-quail should be viewed in combination with the needs of a variety of other threatened grassland birds within its range so that a programme of habitat management and research can be implemented with benefits to each of these species (see Measures Proposed under Bengal Florican and Swamp Francolin). As so little is known of the distribution and status of this species, surveys are urgently required (Karim undated, McGowan *et al.* 1995). These should concentrate on former localities in Manipur (the south and east Manipur basin, areas around Phalel and Imphal), West Bengal and Assam. Surveys should focus on areas of tall damp grassland and involve interviews with local people. The call, described from a captive bird as a “loud, clear ringing... a beautifully clear, shrill and characteristic whistle ... Whit-it-it-it-t-t... which could easily be heard a hundred yards off” (Powell Connor 1908), should be used to try and locate the species. After learning this call, Powell Connor (1908) heard it in Manipur “several times”, and there is little doubt that tracking down this vocalisation provides the best opportunity of locating the species. A “note” given by birds in Assam was described as “like that of the Painted Bush Quail *Perdicula erythrorhyncha*” (Inglis 1910), although this is perhaps a contact or alarm call as it was often uttered as a covey separated on being flushed. When areas of grassland holding this species are found they should be formally protected at the earliest opportunity.

REMARKS (1) The nominate race was described by A. O. Hume (*Stray Feathers* 9 [1881]: 461–471) from Manipur, while birds collected north of the Brahmaputra river in the Bhutan duars were later described as *Micropedix inglisi* (Ogilvie-Grant 1909), now *P. m. inglisi*.

(2) The “Systematic List of the Birds of East Pakistan” (Rashid 1967) includes many new distributional records for which there is no corroborative evidence elsewhere. While some direct observations were used to compile the list, Rashid (1967) himself admitted that, given the paucity of fieldwork conducted in Bangladesh during the early phase of specimen collection, “what we are left with is actually a mass of inferences” based on data from regions bordering the country. Although it is a useful document, its weakness lies in the fact that direct observations are not specified and therefore it is impossible to detect which new distributional data rely entirely on inference. Rashid (1967) even explained that “if a species is reported from the Duars and Cachar in the foothills grassy areas it can be presumed that it may be found in Sylhet and north Mymensingh in similar bio-type”. This is clearly the foundation for his listing of Manipur Bush-quail (*inglisi*) in northern Bangladesh, while the bird’s presence in Manipur must have been used to generate his listing (of *manipurensis*) for Chittagong. While Rashid’s (1967) statement that “only in a few instances will such presumption be wrong” was perhaps true when habitat was available, and although his regional data have been used repeatedly to describe and map the range of many species (e.g. in Ali and Ripley 1968–1998, Ripley 1982, Grimmett *et al.* 1998, BirdLife International 2000), the evidence is not compelling and, where no corroboration exists, none of his records has been accepted in this present study. Several threatened species whose listing for Bangladesh originates in this document (or in Baker 1922–1930; *Prinia cinereocapilla*) are therefore not mapped for the country (Dalmatian Pelican *Pelecanus crispus*, Manipur Bush-quail, Rufous-necked Hornbill *Aceros nipalensis*, Lesser Kestrel *Falco naumanni*, Dark-rumped Swift *Apus acuticauda*, Jerdon’s Babbler *Chrysomma altirostre*, Slender-billed Babbler *Turdoides longirostris*, White-throated Bushchat *Saxicola insignis*, Beautiful Nuthatch *Sitta formosa* and Finn’s Weaver *Ploceus megarhynchus*) while several others are not included for the Chittagong region (including Swamp Francolin *Francolinus gularis*, White-bellied Heron *Ardea insignis*, Pale-capped Pigeon *Columba punicea*, Wood Snipe *Gallinago nemoricola*, Marsh Babbler *Pellorneum palustre* and Black-breasted Parrotbill *Paradoxornis flavirostris*).

(3) A nest reported by Baker (1922–1930) from the North Cachar hills presumably contained the clutch of four eggs now stored in BMNH and labelled as from the Leri-Baladhan plateau, Manipur–Cachar hills, near Baladhan, North Cachar, the date being published as May, but appearing on the egg record cards as April 1894 (BMNH egg data, Baker 1922–1930; see Remarks 2 under Grey-crowned Prinia).