

Threatened Birds of Asia:

The BirdLife International Red Data Book

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CHESTNUT-BREASTED PARTRIDGE

Arborophila mandellii

Critical —
Endangered —
Vulnerable C1; C2a

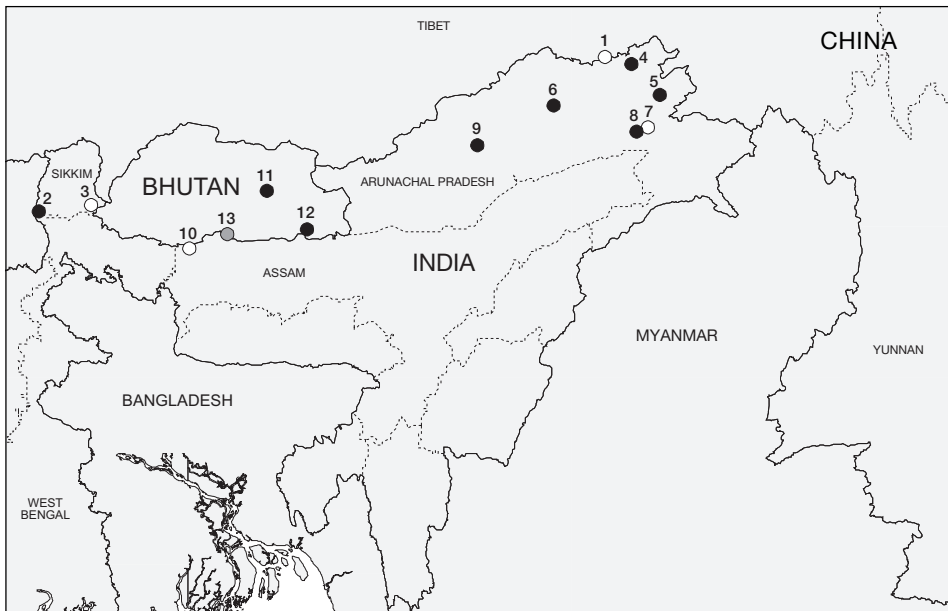


It is inferred from limited available data that this partridge has a small population which is declining and becoming increasingly fragmented. It is therefore classified as Vulnerable. Results of more extensive surveys will require a reassessment, and possible downgrading, of its threat status.

DISTRIBUTION The Chestnut-breasted Partridge was historically distributed from Sikkim and West Bengal (India) eastward through Bhutan to Arunachal Pradesh, India, and into Tibet (China). It still appears to be evenly distributed across its range wherever suitable habitat remains (R. Kaul *in litt.* 1998).

■ **CHINA** There is only one confirmed record (and an unconfirmed nesting record) from south-east Tibet, as follows:

■ **Tibet** upper **Dingba Qu** river (Dibang valley, Danba river), Medog county, 600 m, one collected, January 1912 (Bailey 1916a; also Cheng Tso-hsin 1987, Li Xiangtao 1996; see Remarks 1). An unconfirmed record is from Chumbi valley (probably in Yadong county), where a clutch was collected, probably of this species, but possibly of Hill Partridge *Arborophila torqueola*, in June 1918 (clutch of four eggs in BMNH).



The distribution of Chestnut-breasted Partridge *Arborophila mandellii*: (1) Dingba Qu; (2) Singalila National Park; (3) Lingtam; (4) Dibang Valley Wildlife Sanctuary; (5) Malinye; (6) Mouling National Park; (7) Mishmi hills; (8) Mehao Wildlife Sanctuary; (9) Tali; (10) Bhutan duars; (11) Namling-Yonkhala road; (12) Narphang; (13) Geylegphug.

○ Historical (pre-1950) ● Fairly recent (1950–1979) ● Recent (1980–present) □ Undated

■ **INDIA** It is found in the forests of Sikkim and West Bengal, reappearing to the east in Arunachal Pradesh, north of the Brahmaputra. A series of specimens from “native Sikkim”, October 1876–April 1879 (eight males and two females in BMNH), and a probable clutch, June 1910 (three eggs in BMNH), were taken in hills that now lie in southern Sikkim and northern West Bengal. Records are from:

■ **West Bengal** near Darjeeling (Khaling 1998), which could in fact be the following record from **Singhalila National Park**, where it was reported recently (R. Kaul verbally 1999, Khaling 1999), although further confirmation is desirable; also probably found in the Bhutan duars (see under Assam), but not encountered during prolonged fieldwork in Jalpaiguri district (Inglis *et al.* 1920);

■ **Sikkim** hills to the south of **Lingtam**, c.1,850 m, February 1931 (male in FMNH);

■ **Arunachal Pradesh** near **Dibang Valley Wildlife Sanctuary**, around 1994 (Kaul *et al.* 1995a); **Malinye**, 1,850 m, a corpse observed, January 1994 (Singh 1994); Seet, adjacent to **Mouling National Park** (Moiling), 1,650 m, vocalisations heard, March 1998 (Singh 1999); Bri river, **Mishmi hills**, 600 m, January 1912 (male in AMNH); **Mehao Wildlife Sanctuary**, early 1994 (Kaul 1994); at **Tali** and Sarli, where an *Arborophila* commonly heard calling in 1999 (Singh 1999) was later identified from tape-recordings as *mandellii* (C. Inskipp *in litt.* 1999);

■ **Assam Bhutan duars**, collected in April (*Stray Feathers* 2 [1874]: 441–451), this referring to Mandelli’s specimens, most or all of which could have come from the part of the Bhutan duars currently in West Bengal; Nameri National Park (not mapped), 1990s (Choudhury 2000c); Subansiri Reserve Forest (not mapped), Dhemaji district, 1990s (Choudhury 2000c).

There is one uncertain record from Buxa Tiger Reserve, West Bengal, where there were four sightings of what appeared to be this species in February 1992 (Allen *et al.* 1996).

■ **BHUTAN** In March 1993 the call of an *Arborophila* partridge was commonly heard between 700–1,200 m at Mangdechu, Shemgang district, and tentatively identified as this species (D. Johnson *in litt.* 1999). There have been further reports of vocalisations in the area (e.g. R. Pradhan *in litt.* to C. and T. P. Inskipp in Inskipp *et al.* 1999a), but they are here treated as inconclusive because of the possibility of confusion with Rufous-throated Partridge *A. rufogularis*; the only known recordings taken in Shemgang district are from the latter species (C. Inskipp *in litt.* 2000) and thus further proof of identification is required. Confirmed records are from: Thrumshingla National Park, where it is found on the **Namling–Yonkhala road** (part of what is sometimes called “Lingmethang road”) (Inskipp *et al.* 2000), with seven recorded in April 1998 (King 1998a), one heard in April–May 1998 (Farrow 1998, Inskipp and Inskipp 1998), up to 3–4 heard in April 1999 (Farrow 1999, Holt 1999), and four in April 2000 (Farrow 2000), with a pair duetting in May 2000 (K. D. Bishop *in litt.* 2000); **Narphang**, c.1,700 m, on the border between Tashigang and Samdrup Jongkhar districts, one male collected, February 1966 (Ali *et al.* 1996), and (given as “Narphang”) one calling, April 1999 (D. Farrow *in litt.* 1999), and in this same area, between Morong and Deothang on the Tashigang–Samdrup Jongkhar road, at least two heard, April 1998 (Bishop 1998); **Geylegphug** (Gaylephug), c.350 m, one seen, April 1967 (Ali *et al.* 1996).

POPULATION Vague estimates of the population range between 1,000 and 100,000 for its entire range (McGowan *et al.* 1995). As considerable areas of unsurveyed forest remain in this area, further research will perhaps show it to be more numerous and widespread than current records imply. However, increased fieldwork in Bhutan has revealed that it is rather local and thus the overall population is possibly small.

India Inglis *et al.* (1920) stated that the birds collected in the “Bhutan duars” were probably taken in Jalpaiguri district, but that they could not find the species during several years’ fieldwork, suggesting that it was uncommon in the area. Although there have been no

subsequent confirmed sightings from the Bhutan duars, recent evidence suggests that it is commoner than previously supposed (R. Kaul *in litt.* 1998). In particular, while some difficulty remains in distinguishing the region's *Arborophila* species by their vocalisations (R. Kaul verbally 1999), increased knowledge of the calls of *mandellii* have clarified that it is quite common in the forests of eastern Arunachal Pradesh (Grimmett *et al.* 1998, Singh 1999, C. Inskipp *in litt.* 1999).

Bhutan Although described as “locally common” in Shemgang district (Inskipp *et al.* 1999a), further confirmation of the species's presence in this area is desirable. It is “rare and local” in Thrumshingla National Park (Inskipp *et al.* 2000), where seven were recorded between Namling and Yongkhala in 1998 (King 1998a). This stretch of habitat is apparently the only part of Thrumshingla National Park known to contain warm broadleaved forest with plenty of bamboo, and it may be that the species is at least partly constrained by the distribution of this habitat type (C. Inskipp *in litt.* 2000). Furthermore, although it is regularly recorded in the park, recent records possibly refer to only very few calling males repeatedly encountered (C. Inskipp *in litt.* 1999).

Captivity There is not thought to be a captive population (McGowan *et al.* 1995).

ECOLOGY Habitat This species inhabits dense evergreen forest undergrowth between 350 and 2,500 m (McGowan *et al.* 1995), perhaps descending to 300 m (Stevens 1923–1925). In both Bhutan and Arunachal Pradesh, it generally occurs in evergreen forest with plentiful bamboo undergrowth, often on steep slopes (Singh 1999, C. Inskipp *in litt.* 1999). It is apparently often found in areas close to streams (Baker 1922–1930), although this comment has received no recent confirmation. It has been observed in secondary forest and wild banana growth outside Dibang Valley Wildlife Sanctuary (Kaul *et al.* 1995a). In Thrumshingla National Park, it is found locally at 1,860–1,980 m, usually in areas where warm broadleaved forest contains bamboo (Inskipp *et al.* 2000, C. Inskipp *in litt.* 2000).

Food There is no information on diet or foraging behaviour.

Breeding The breeding season probably commences in March and lasts until June, judging from calling activity (R. Kaul *in litt.* 1998). One nest with four eggs was found in the Chumbi valley at c.2,400 m in early June (Baker 1921–1930), although the evidence upon which identification was based is not specified; it was described as a pad of grass under a rock in forest (Grimmett *et al.* 1998).

THREATS The Chestnut-breasted Partridge is one of nine threatened members of the suite of 19 bird species that are entirely restricted to the “Eastern Himalayas Endemic Bird Area”, threats and conservation measures in which are profiled by Stattersfield *et al.* (1998). Forest cutting, shifting agriculture and hunting for food are presumably among the deleterious pressures on populations of this species (McGowan *et al.* 1995). These factors are dealt with by country as follows.

China Forests in south-east Tibet remain relatively undisturbed and this species is probably hunted infrequently (Lu Xin *in litt.* 1999).

India In north-east India forests are threatened by shifting cultivation, timber harvesting and clearance for tea cultivation, as a result of which a substantial area of habitat is degraded each year leaving primary forests increasingly fragmented (S. A. Hussain 1993, Singh 1999; see equivalent section under Rufous-necked Hornbill *Aceros nipalensis*). Nevertheless, the fact that the species is quite well distributed suggests that there is little immediate threat, especially given that much of its range is relatively inaccessible and forests within it therefore relatively secure. Around Darjeeling, however, much of the region has been converted to tea plantation (R. Kaul verbally 1999), while elsewhere in West Bengal forest is shrinking rapidly and being constantly fragmented (B. F. King verbally 1998). Forested protected areas such as Singhalila National Park, where the species almost certainly occurs (Khaling 1999), provide

the best hope for its survival. This protected area also provides a case study of pressures on the region's forests: local people collect wood, raise yak and cultivate crops on the Indian side (Samant *et al.* 1995, Khaling 1999), and, there being no buffer on the deforested Nepal side, the park also suffers high incursion rates from Nepalis who hunt wildlife, seek forest products or graze their cattle, all factors which have caused considerable damage to undergrowth in the park and in particular to gamebird populations (Khaling 1999). Furthermore, yaks cause damage to vegetation when they graze, and production of cheese from their milk requires considerable wood fuel resources, increasing local forest use (Khaling 1999). This problem is presumably relevant to many mountainous areas in the range of this species.

Local hunting does not appear to be a major factor, provided large contiguous tracts of primary forests are maintained (R. Kaul verbally 1999). Hunting is, nevertheless, locally frequent; in the Mishmi hills (Mehao Wildlife Sanctuary, etc.), for example, "rampant" snaring probably results in the deaths of many galliforms (Kaul 1994).

Bhutan Shifting agriculture, logging and clearance for settlements is likely to become a problem for Bhutan's forests and overgrazing and burning may also cause significant damage, even in and around Thrumshingla National Park, despite the country's admirable forestry policy (Sherpa 1994, Inskipp *et al.* 2000a,b; further information is in the equivalent section under Rufous-necked Hornbill).

MEASURES TAKEN The Chestnut-breasted Partridge has recently been determined present in three protected areas, of which Singhalila National Park in West Bengal and Mehao and Dibang Valley Wildlife Sanctuaries in Arunachal Pradesh are considered irreplaceably important to the long-term conservation of galliforms in East Asia (McGowan *et al.* 1999). In addition, it occurs within Thrumshingla National Park, Bhutan (Inskipp and Inskipp 1998; see equivalent section under Rufous-necked Hornbill), and almost certainly within Mouling National Park, India, while the locality where it has been recorded in south-east Tibet is in, or near, Medog Nature Reserve (Lu Xin *in litt.* 1999).

Export of timber from forests in Arunachal Pradesh has been banned, a measure that is expected to provide some relief from commercial extraction; however, local timber continues to supply the plywood and veneer factories in Arunachal Pradesh (R. Kaul verbally 1999). In Bhutan the national forest policy proposes to "ensure primarily the preservation of the environment, and only thereafter derivation of economic benefits that flow from rationally managed resources", and to maintain forests over 60% of the country (Adams 1989). This far-sighted approach to forestry and the country's environmental heritage goes some way to ensuring a safe long-term future for this species.

MEASURES PROPOSED *Protected areas* The area around the Yalung Zangbo valley, China, has been proposed as a new protected area (with an area of 1,800 km²), linked with the existing Medog reserve, and this new protected area is likely to conserve more of this species's habitat (Lu Xin *in litt.* 1999). In Bhutan, the boundaries of Thrumshingla National Park should be extended east towards Yongkhala to increase the coverage of lower-altitude broadleaved forests (Inskipp and Inskipp 1998).

Deforestation A continued ban on the export of timber from Arunachal Pradesh is required; in addition, the supply of timber to plywood industries should be monitored and controlled (R. Kaul *in litt.* 1998). The alarming rate of deforestation in West Bengal and the increasing loss of habitat in Bhutan should also be curbed or minimised at the earliest opportunity.

Research Extensive surveys are required to investigate the distribution and status of this species (McGowan *et al.* 1995). Its call has been described as a repetition of *prrrreet*, followed by a series of *prrr prrr-er-it*, ascending to a climax (Grimmett *et al.* 1998). Recordings should

be made of all *Arborophila* vocalisations heard during such surveys and compared with existing recordings made in Bhutan and Arunachal Pradesh (see under Ecology). A further technique that might prove useful involves playback of taped calls in suitable habitat. This method elicits vocal responses in many galliform species, even outside calling seasons, and, used judiciously, may prove instrumental in clarifying the presence and population density of Chestnut-breasted Partridges in survey areas.

REMARKS (1) The record of this species in the upper Dingba river (Dibang valley, Danba river) has been listed under China (see Distribution), but this locality lies very close to the border between India and China (as mapped in TAW 1999). Given that this specimen was collected at 610 m (Bailey 1916a) it is possible that it was within India rather than China, although in reality the area occupied by this species in the upper Dingba river probably straddles the border between the two countries.