

Threatened Birds of Asia:

The BirdLife International Red Data Book

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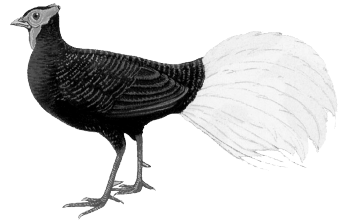
WATTLED PHEASANT

Lobiphasis bulweri

Critical —

Endangered —

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



This pheasant is classified as Vulnerable because it is inferred to be declining rapidly owing to extensive and ongoing habitat loss, compounded by hunting. It is also assumed to have a small population which is likely to be experiencing increasingly severe fragmentation, particularly as it may be dependent on nomadic visits to lowland areas.

DISTRIBUTION The Wattle or Bulwer's Pheasant (see Remarks 1) is restricted to foothills and adjacent lowlands in Borneo. The map of known localities shows this general association with land near and above the hill-foot boundary, with no record from Kalimantan within 200 km of the east and south coasts. In the early part of the twentieth century, Beebe (1918–1922) found it “distributed over much of central Sarawak”, although until the 1960s (see below) it was unknown from the Kelabit uplands (Smythies 1957). Records are from:

■ **MALAYSIA** ■ **Sabah** (see Remarks 2) **Crocker Range National Park**, undated (Smythies and Davison 1999); **Pinangah** (“Penungah”), some 250 km up the Kinabatangan river, in around 1870s (Treacher 1888); **Mengalong river**, June 1899 (Blasius 1901); **Gunung Lotung**, Maliau basin, April 1988 (Marsh and Gasis 1990; also *World Birdwatch* 11[1]:4); **Danum Valley Conservation Area**, Ulu Segama, at the base of a steep slope at 250–300 m, September 1990 (Lambert 1992, 1993c); 9 km south-west of **Tenom**, December 1962 (Thompson 1966); **Sipitang**, undated (Sheldon *et al.* in press); **Sapulut**, undated (Payne 1990); **Tawau Hills Park**, undated (Sheldon *et al.* in press), this presumably being “the foothills of the Brassey range” mentioned by Smythies (1981) and the record from the Tawau hills in the 1960s mentioned by Davies and Payne (1982); 18 km north of **Kalabakan**, undated (Thompson 1966); **Long Pasia**, undated (Payne 1990);

■ **Sarawak** upper **Lawas river** (type locality), 1874 and subsequently (Sharpe 1876–1879, Treacher 1888); **Merapok** (Gunung Marabok), December 1899 to January 1900 (Blasius 1901); Gunung Mulu presumably in what is today **Gunung Mulu National Park**, 300–600 m, September–December 1893 (Sharpe 1893–1894), and up to 1,500 m, undated (Banks 1935b); **Tinjar**, Baram district, undated (Banks 1935a); **Kelabit uplands**, October 1962 (Smythies 1963); **Kubaan river**, Tutoh, 400–600 m, February 1965 (Fogden 1976); **Ulu Akah**, Baram district, undated (Banks 1935a); **Gunung Dulit**, c.1890 (Sharpe 1892), this being the reputed source of an egg *vide* Beebe (1918–1922); **Gunung Kalulong**, “not... at any great height”, c.1890 (Sharpe 1893–1894), May 1893 (Fisher 1981); **Usun Apau plateau**, 1955 (Smythies 1957, 1981); **Baleh river**, branch of the Rejang river, undated (Beebe 1918–1922, Banks 1935a), and on the same well east of Kapit, September 1989 (B. F. King verbally 1998); **Fort Kapit** (“just within the zone of White-tailed [=Wattle] Pheasants”) on the Rejang river, undated (Beebe 1918–1922); **Mujong river** and an unidentified tributary of the upper Rejang, undated (Beebe 1918–1922); Rejang river just above the Ketibas junction, September 1867 (Beccari 1904; see Remarks 3); Samarahan river, near **Kuching**, c.1910 (*vide* Smythies 1957; see Remarks 4); **Ulu Batang Lupar** above the Katibas basin, undated (Banks 1935a), and at Bukit Awai, 300 m, November 1930 (male in NRM); **Lanjak-Entimau Wildlife Sanctuary**, September 1981 (Kavanagh 1981) and apparently currently (WWF Malaysia 1998); **Balui river**, branch of the Rejang river, undated (Beebe 1918–1922, Banks 1935a);

■ **BRUNEI** Belait district, November 1985 (Mann 1989); by local report, on the Labi hills (30 km south of Seria) and on the Ladan hills on the eastern border (Smythies 1957);

■ **INDONESIA** Kalimantan ■ **East Kalimantan Kayan Mentarang National Park**, 1990s (Holmes 1997), near the Iwan river, March–May 1999 (J. Rowden in *Tragopan* 11: 3–4); **Peleben**, at the junction of the Kayan and Bahau rivers, early May/early July 1935 (Stresemann 1938a), along with camp 6, north of Mandurau (untraced) near the Bulungan (Kayan or Kajan) river, January–February 1914 (Voous 1961), and Kabarau (untraced) on the Bulungan, January 1914 (male in NRM); **Badang**, on the Bahau river in the Bulungan/Kajan system, 1935 (Stresemann 1938a); **Gunung Tibang**, 1920s or earlier (Mjöberg 1930); Sungai



The distribution of Wattled Pheasant *Lobiophasis bulweri*: (1) Crocker Range National Park; (2) Pinangah; (3) Mengalong river; (4) Gunung Lotung; (5) Danum Valley Conservation Area; (6) Tenom; (7) Sipitang; (8) Sapulut; (9) Tawau Hills Park; (10) Kalabakan; (11) Long Pasia; (12) Lawas river; (13) Merapok; (14) Gunung Mulu National Park; (15) Tinjar; (16) Kelabit uplands; (17) Kubaan river; (18) Ulu Akah; (19) Gunung Dulit; (20) Gunung Kalulong; (21) Usun Apau plateau; (22) Baleh river; (23) Fort Kapit; (24) Mujong river; (25) Kuching; (26) Ulu Batang Lupar; (27) Lanjak Entimau Wildlife Sanctuary; (28) Balui river; (29) Belait district; (30) Kayan Mentarang National Park; (31) Peleben; (32) Badang; (33) Gunung Tibang; (34) Sungai Blu; (35) Sungai Boh; (36) Muara Joloi; (37) Gunung Liang Kubung; (38) Bukit Raya Nature Reserve; (39) Bukit Baka Nature Reserve; (40) Sungai Kapuas.

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

Brunei, Bruny or Brunij, Sungai Dingai and **Sungai Blu**, upper Mahakkam (but still at around only 200 m), between 1896 and 1900 but including October 1896 (male in USNM from Ban Fu, Long Blu) and October–December 1899 (Finsch 1900, 1905; also Büttikofer 1899); **Sungai Boh** to the Laya river, 1920s or earlier (Mjöberg 1930); 8 km (“Punt D”) above Long Petah (untraced but likely to be in East Kalimantan), 1,200 m, 1925 (Kloss 1930a); ■ *South Kalimantan* Balai Kedayang, Meratus (Muratus) mountains, by local report, 1996 (Davison 1997); ■ *Central Kalimantan* above **Muara Joloi** at the confluence of the Busang and Murung rivers, 150–250 m, Barito Ulu (Barito river headwaters), July–September 1989 (Wilkinson *et al.* 1991a,b); ■ *West Kalimantan* **Gunung Liang Kubung**, April 1894 (Büttikofer 1899, Finsch 1905); **Bukit Raya Nature Reserve**, undated but presumably post-1980 (McGowan and Garson 1995); near **Bukit Baka Nature Reserve**, a few weeks or months before February 1988 (Rice 1989); upper **Sungai Kapuas**, undated but presumably post-1980 (Holmes 1989).

POPULATION The commonness or rarity of the Wattled Pheasant is very difficult to gauge. This has led to its being generalised as “local and patchy” (Smythies 1957, 1981), which may have been based mainly or exclusively on the experience of Beebe (1918–1922), who called the species “extremely local”, indeed inexplicably so, such that “in passing down a stream, bordered with homogeneous forest, the bird would be well known to the natives of one section and wholly unknown to the next few tribes, although all were skilful trappers and acquainted with all the edible pheasants and similar birds in their neighbourhood”. In the Kelabit Highlands in 1962 it was deemed to be “very rare on [the] Bario side of [the] plateau, where even some elderly men had not seen one before” (Smythies 1963).

Reporting on the capture of the type specimen, Treacher (1888) pointed out that it was delivered in 1874 to a man (H. Low) who had been acquiring material from natives since around 1848—in other words, the species took a long time to come to light, again suggesting its patchiness—but one of Treacher’s correspondents (G. Hewett) reported that he “used to trap a good many...” and that “they were very plentiful” at Penungah, but “lie very close” (i.e. are extremely secretive) such that he never saw them except in traps. It was also reported as “often trapped” on Gunung Dulit (Hose 1893). The species was “very numerous” north of Mandurau on the Kayan river in 1914 (Lumholtz 1921). Fogden (1976) judged it common (defined as “seen regularly in small numbers”) in the Tutoh headwaters, northern Sarawak, in early 1965, and Banks (1935a) thought it “common enough in favoured parts” and particularly common in the Ulu Batang Lupar, but “gone altogether or rare” in populated areas, adding that it is “very shy and wary”. By the mid-1950s it had become rare in the Kuching area (Smythies 1957)—not a particularly surprising development. Workers investigating the Lanjak-Entimau Wildlife Sanctuary in Sarawak reported that one native group considered it quite common and present in both primary and secondary forest, while a second group judged it restricted to primary forest (Kavanagh 1981). This kind of evidence was doubtless responsible for the generalisation that the species was or is “still very common in the extensive undisturbed forests of the interior” of Borneo (Smythies 1981), but the assertion that this was its status on the Usun Apau plateau (Smythies 1981), apparently with no supporting evidence since 1955 (see Distribution), needs to be treated with caution. In 1989 it was again judged to be present at fairly high density in Barito Ulu, and the paucity of Kalimantan records was attributed to the paucity of observers (Wilkinson *et al.* 1991a,b). Nevertheless, in the late 1990s, the Kalimantan Pheasant Project concluded from interviews with local people that the Wattled Pheasant has declined very considerably in their lifetimes (R. Sözer verbally 1999).

The total population has been put at 1,000–10,000 individuals and probably declining (McGowan and Garson 1995). Quantification of decline in this species has been attempted, but this exercise was greatly hampered by the scarcity of data: 29 localities were traced, 24

before and six after 1970 (i.e. one shared) (McGowan *et al.* 1998a); in this account 40 localities have been traced, but only eight involve records after 1980.

ECOLOGY Habitat This is a bird of primary forest in hilly country (Smythies 1957), found on sloping terrain in primary dipterocarp submontane rainforest (e.g. Showler 1992, Holmes 1989). One nineteenth-century observer reported (to Treacher 1888) that he procured it “on steep hill-sides, and... never found one on any low-lying or flat ground”; another that it “is only found on the mountains, though it does not ascend very high, not extending beyond 2000 feet” (Hose 1893); a third that it is “very shy and [lives] very retired in the thickest mountain-forest” (Büttikofer 1899). However, Beebe (1918–1922) corrected this notion, denying that the bird was only to be found in the mountains, and he knew of no record higher than 660 m; he found it in deep-lying river valleys and in foothills in dry jungle and the undergrowth of lighter forest, mentioning that “the natives of the lower zones are much more familiar with the *Blaïou*, as they call it, than many of the tribes from nearer the central ranges”. Importantly, perhaps, like Treacher’s (1888) contact, he never found it in the “low, level, half-marshy regions which are the delight of the firebacks”, and this ecological separation is doubtless real.

Beebe (1918–1922) judged that it commonly inhabits the first forested ridge around a river’s headwaters, and sometimes also the second, but not more; he invariably found it along (usually larger) rivers and creeks in the dry season, while at the start of the wet season it came less often to riverbanks, presumably finding moisture in forest pools. Within its elevational range it remains a bird of “old jungle” and avoids cultivated and cleared areas (Banks 1935a); Thompson (1966) was also told that it keeps exclusively to primary forest; he collected one in “moss forest” (female in USNM). There is an at first sight anomalous record from *Agathis* heath forest at Gunung Lotung (Marsh and Gasis 1990; also Smythies and Davison 1999), but *Agathis* is a large tree and the area of such montane habitat on Lotung is small, so this was probably just a wandering individual (G. W. H. Davison *in litt.* 2000).

It is essentially ground-haunting: “it skulks along through the jungle... seldom taking flight”, and in its actions “it is much more like a Jungle-fowl [*Gallus*] than a Pheasant” (Hose 1893). Despite Beebe’s (1918–1922) scepticism (see above), the upper elevational limit has been put at 1,500 m (McGowan and Garson 1995), and one recent authority indicated that its core habitat lies between 500 and 1,000 m, usually in bamboo forest (G. W. H. Davison *per R. Sözer in litt.* 2000), in river headwaters (Davison 1979); and it has even been suggested that this bird may be like Lady Amherst’s Pheasant *Chrysolophus amherstiae*, with which it is reported to share identical calls, in following the courses of clear streams and taking crustaceans (K. B. Woods verbally 2000), although the evidence under Food indicates that such behaviour, while possible at certain seasons or in certain circumstances, cannot be a major specialisation and is certainly not obligate. Roosting captive birds climbed rather than flew to their position in trees (in Treacher 1888); in the wild such places are reported by natives to be regular, the trees being isolated and the branches free from undergrowth (Beebe 1918–1922).

Food The species feeds on all kinds of fruit (Mjöberg 1930), and hard fruit-seeds were found in stomachs from the Mahakam (Finsch 1905), and simply “fruit” in a female from Tenom, Sabah (in USNM). The fact that it is associated with fruiting events, coming with wild pigs to areas where fallen fruit covers the ground (see Migration), suggests a curious type of feeding specialisation, one which is an immanent life-history trait that permits a nomadic opportunistic response to favourable conditions. Nevertheless, other stomach analyses revealed that the species is as much insectivorous as frugivorous, with ants in particular being targeted, but also termites, small crickets and other Orthoptera, plus unspecified aquatic insects, worms and crayfish, round black seeds and large pieces of some nut-like fruits called “cacos” (Beebe 1918–1922). In one aviary males thrived on boiled rice and fruit, but females refused food (Treacher 1888). In another, birds ate grain, fallen fruits and cockroaches, while one female was seen to catch but not eat a frog (Banks 1935a).

In the dry season the birds go twice a day to drink, and in one observation a group of four pheasants was associated with three small deer, with one of two members of one or other species always keeping watch; such an association (between two relatively large, vulnerable, ground-dwelling animal species) appeared to be mutually advantageous as an anti-predator mechanism and probably common (Beebe 1918–1922). During this observation, the birds were also seen to scratch in the gravel and mud at the edges of the streams, apparently taking worms, and also in the shallows, making the water fly, then snatching at some swimming thing (Beebe 1918–1922).

Breeding Despite the high degree of sexual dimorphism in this species, observations of male and female with young (see below) suggests that monogamy may occur (Johnsgard 1999; but see Remarks 5). The season appears extended (see Remarks 6), but it may be in part stimulated by unpredictable fruiting events and thus not regular from one year to the next (see Migration). Fighting between two males courting a female was seen in July (Beebe 1918–1922). On the Mahakam River a bird in full moult was taken in October, while another in December was in new plumage, so it was assumed that December would mark the onset of breeding (Finsch 1905). A nest with one egg was found among the buttress roots of a large tree on a forested ridge not far from a river, Brunei, mid-November (Mann 1989). Dayaks reported that the clutch consists of two eggs, and this was supported by two observations of a male and female with two immature birds of the year (Beebe 1918–1922). In captivity as many as four eggs may be laid (Johnsgard 1999). It appears to take at least three years to reach maturity (Sharpe 1876–1879, Hose 1893).

Migration It appears from fragments of evidence that this species is nomadic, at times moving in groups in search of areas with fruiting trees. Thus dayaks told Beebe (1918–1922) that “when a certain fluviate fruit became ripe, these pheasants and many of the smaller mammals came to the river banks in much larger numbers than usual for the purpose of feeding on this dainty”. Mjöberg (1930) reported that it “wanders, at certain seasons of the year, down from the hills to the plain”; he saw it “when I and my caravan were crossing a hill covered with virgin forest... A whole flock of these rare birds, amongst them three cocks with their snow-white tails held proudly curved, ran swiftly past us without taking wing”. Thompson (1966) was told by an estate owner that “this species comes in numbers with the wild pig migration”, a phenomenon observed by the informant at least three times. Lambert (1993c) also considered that the species might be nomadic, since his record in the relatively well-watched Danum Valley Conservation Area was the first (he believed he heard calls from several others at the same time), and coincided with a synchronous mass fruiting of dipterocarps and other trees, which had attracted unusual numbers of bearded pigs *Sus barbatus* into the area. Smythies (1981) again mentioned the association with nomadic pigs—“The Kelabits regard it as a visitor only to the Kelabit uplands and say it comes in with the wild pig”—while the original record from this locality was tagged “as usual, corresponding to pig migration” (Smythies 1963).

THREATS Beebe (1918–1922) attributed the “supposed rarity” of the species to two real and one artificial factor, namely the genuine and inexplicable patchiness of its habitat occupancy, the zeal with which it is hunted, and the reluctance of explorers to enter human head-hunter territory to discover its true status. In more recent times it had been thought that because it inhabits the submontane interior of Borneo, where “large stretches of suitable habitat still remain”, it is “perhaps still secure” (van Balen and Holmes 1993). However, the possibility that it is nomadic, and may depend on major fruiting events in lowland dipterocarp forest as a spur to breeding (see above), suggests that it might precautionarily be treated as if it were a semi-obligate lowland species, and hence almost as much at risk from deforestation as lowland obligate species (see Threats under Crestless Fireback *Lophura erythrophthalma*). Huge areas of low montane forest in Kalimantan against the Sarawak border have been

parcelled out for mining (B. F. King verbally 1998), and as a Bornean endemic (for others see Threats under Bornean Peacock-pheasant *Polyplectron schleiermacheri*), this species is all the more at a disadvantage.

Hunting this species for food is widespread and in some places its feathers are used as decorative brushes (McGowan and Garson 1995). Its presence in the Usun Apau area was indicated by its inability “to keep out of the mammal traps” (Smythies 1957), a fact which tends to suggest the ease and frequency with which it may be hunted. Beebe (1918–1922) referred to “the unconquerable tendency of... natives to instantly kill and eat every animal, bird, snake or other creature which shows enough flesh to make it worth while”. Trade has not been identified as a major issue but a report to TRAFFIC-Southeast Asia indicated that 14 birds left Kalimantan for Singapore during 1998, apparently intended for captive breeding purposes in Singapore or the USA (C. R. Shepherd *in litt.* 2000); moreover, in Sarawak illegal trade is believed to occur, as “this endemic pheasant fetches high prices from collectors overseas” (R. Ahmad in Sebastian ms).

The Wattled Pheasant extends into (but is not restricted to) the “Bornean Mountains Endemic Bird Area”, threats and conservation measures in which are profiled by Sujatnika *et al.* (1995) and Stattersfield *et al.* (1998).

MEASURES TAKEN The species was protected under Indonesian law in 1978 (van Balen and Holmes 1993), and under Sarawak law in 1990 (Smythies and Davison 1999). The only real conservation it has experienced is, however, through protected areas. It was recently determined as present in six protected areas, of which three—Danum Valley Conservation Area, Gunung Mulu National Park and Tawau Hills National Park—are considered irreplaceably important to the long-term security of eastern Asian galliforms (McGowan *et al.* 1999). According to the evidence above, it has also been recorded from Crocker Range National Park (Sabah), Lanjak-Entimau Wildlife Sanctuary (Sarawak), Kayan Mentarang National Park, Bukit Raya Nature Reserve, as well as “near” Bukit Baka Nature Reserve (Kalimantan) (see Distribution, but also, with regard to Danum, Threats under Crestless Fireback).

MEASURES PROPOSED Urgent concerted survey of and conservation effort for major tracts of extreme lowland primary forest in the Sundaic region is called for in the equivalent section under Crestless Fireback.

Proposed national parks at Pulong Tau (see Remarks 7), Usun Apau and the Hose Mountains, and the proposed wildlife sanctuary at Batu Laga, all in Sarawak, should be established as soon as possible (McGowan and Garson 1995). Moreover, the maintenance of intact habitat islands in areas under selective logging programmes should be encouraged as potential reservoirs for the species (McGowan and Garson 1995).

Surveys have been urged at the Danum Valley Conservation Area, and interviews with hunters elsewhere could yield valuable information on hunting pressure and key sites for the species (McGowan and Garson 1995). Fieldwork in the Meratus mountains in South Kalimantan is highly desirable to confirm the species in the province and help determine conservation plans in the range. Given the evidently nomadic nature of this animal, it is important to establish whether certain submontane areas act as permanent reserves (i.e. whether some individuals can and do remain at times when elsewhere a fruiting event is drawing birds down to the lowlands); an intensive programme of radio-tracking over several years might best address this problem and provide crucial information on the ecology of the species (a call for a dedicated programme of research into galliform resource partitioning on Borneo is made under Bornean Peacock-pheasant).

REMARKS (1) In recent decades it has been customary to treat the Wattled Pheasant as a highly derived member of the widespread South-East Asian genus *Lophura*. There seems to

be little doubt that it is indeed closely linked to *Lophura*. However, Voous (1961) expressed the strong opinion that “this striking species” should be retained in its own genus *Lobiophasis*; and it is certainly true that, in terms of plumage pattern and structure, size and, most notably, display, this bird merits taxonomic recognition of its great distinctiveness. (2) Gore (1968) called this species “widely distributed” and did not provide specific records, yet only nine localities have been traced here. (3) This record seems certain but the observer himself regarded it as probable only, given that he saw “two fine white-tailed pheasants... on the edge of the jungle” but being at a distance in a boat was unable to shoot them; and in any case at this time the species had not been described to science! (Beccari 1904). (4) Smythies (1957) provided a source for this information, but the source appears not to contain it. (5) Of course it is possible that the association of a female and her offspring with a male (even if he is the father of those offspring) merely represents the choice of the female to seek greater security, or the choice of the male to seek the company of a female who may soon be ready to mate again, or the circumstance in which a polygynous male elects to consort with one of a group of females he has fertilised, leaving the other(s) to fend alone. At least it cannot be assumed that a male, female and young in any way demonstrate monogamy. (6) Beebe (1918–1922) provided slightly contradictory evidence. He reported being brought birds all heavily moulting in July and said that the age of immature birds indicated that nesting had taken place in April. A few pages later he again referred to birds received in July but then said their age was five or six months, which puts date of hatching back to February, laying to January and, presumably, courtship to December. In any case he also in this second passage expressed the expectation that the season was “rather elastic”. (7) Smythies and Davison (1999) mentioned Pulong Tau ambiguously, so that it is not certain whether the species is known or speculated to occur there; this is also true of McGowan and Garson (1995), on which the reference by Smythies and Davison (1999) may be based. Confirmation of the species’s occurrence at the site is urged.