

New sites for Mrs Hume's Pheasant *Syrmaticus humiae* in north-east India based on hunters' specimens and local reports

ANWARUDDIN CHOUDHURY

Mrs Hume's Pheasant *Syrmaticus humiae* is a poorly known globally threatened (Vulnerable) species (BirdLife International 2004). It is thinly distributed in the hill tracts of north-eastern India, north and west Myanmar, south-west China and north Thailand (Ali and Ripley 1987, Fuller and Garson 2000, Han Lianxian 1997). Very little current information on its status and distribution is available (Fuller and Garson 2000, BirdLife International 2001). Recent fieldwork in north-east India prior to this study had resulted in few records (Katju 1996, Kaul *et al.* 1996, Choudhury 1997, 1998, 2000, 2001, Robson 1999). No previous survey had specifically targeted the species.

I carried out surveys in Nagaland, Manipur and Mizoram during 1996–2004 to assess the current distribution and status of the species, mainly from hunters' specimens and local reports.

METHODS

I carried out surveys in: Nagaland in June 1996, January, February, April and October 2001, February 2002 and February 2004; Manipur in January 1996, January 2001, October 2001 and February 2002; and Mizoram in April 2000 and February 2001. These states are almost entirely mountainous. The climate is monsoonal with hot wet summers and cool dry winters (although winter rains are also not uncommon); annual rainfall is 1,000–6,000 mm. Camps where I stayed during surveys included: Imphal, Moreh, Churachandpur, Tamenglong, Kaikao, Ukhrul and Tongtao in Manipur; Kohima, Zunheboto, Pungro, Fakim, Thanamir, Kiphire, Waziho, Wokha, Mokokchung, Tuensang and Noklak in Nagaland; and Aizawl, Lunglei, Lawngtlai, Saiha, Champhai, Khawmawi, Phura, Farpak, Vapar, Ngopa and Teirei in Mizoram. I examined specimens in villages, including snared individuals, dried skins, and tail feathers. I assumed (after interviewing the hunters and visiting the reported sites of hunting/trapping) that all specimens had been captured locally. I interviewed villagers and forest department officials and used coloured illustrations of Mrs Hume's Pheasant and similar species to question them about its occurrence. From these discussions, I categorised the abundance of the species at each site as: 'not uncommon' (where it is regularly snared and where most villagers could recognise illustrations), 'rare' (where it is occasionally snared and where most villagers could recognise illustrations), and 'very rare' (where it is rarely snared and where few villagers could recognise illustrations). Although highly subjective and potentially unreliable, these categories give at least some idea of relative abundance.

DISTRIBUTION

I observed the species at three previously known sites (Shiroi, Murlen and Phawngpui), recorded 20 new sites based on live captured birds or preserved specimens in villages, and identified an additional 24 new sites where villagers reported the species (Appendix, Fig. 1). In Nagaland, BirdLife International (2001)

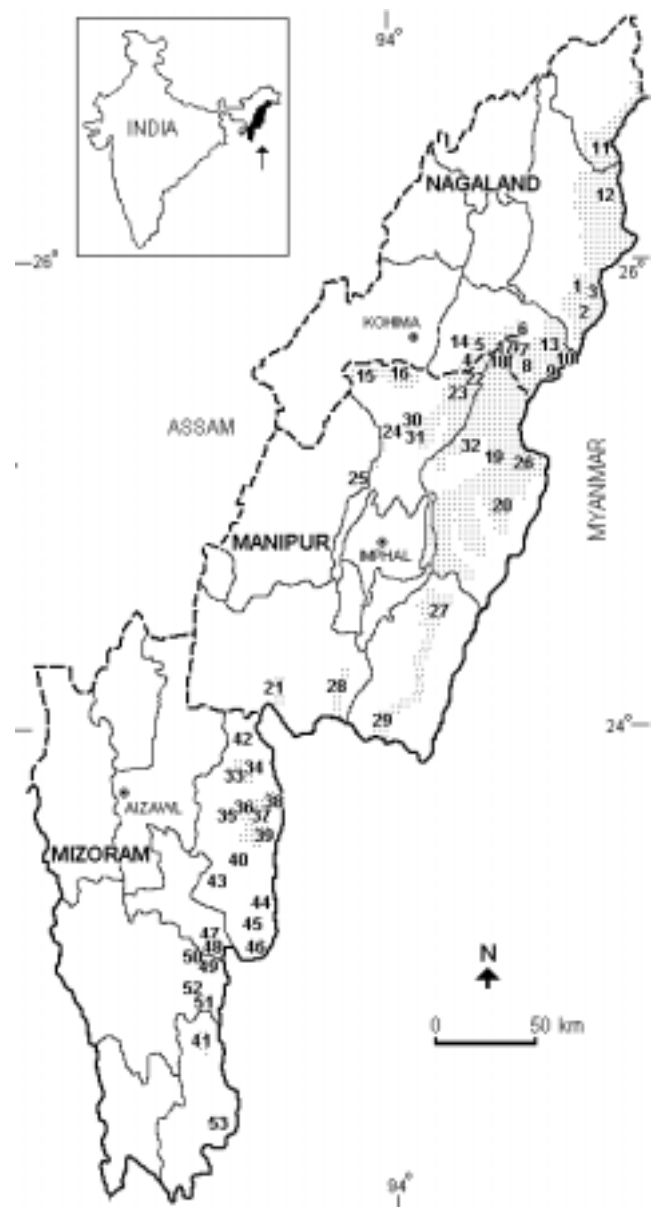


Figure 1. Map showing location of sites where Mrs Hume's Pheasant has been recorded or reported in Nagaland, Manipur and Mizoram. Numbers correspond to those in Table 1. Shaded area indicates presumed distribution.

listed the Naga Hills as the only area in the state from which the species was known, based on pre-1917 sightings and specimens (Baker 1921–1930, 1922–1930), and by a 1950 local report (Ripley 1952). I recorded preserved specimens in ten locations, with local reports from a further four (Appendix). Hence it appears that the species is still widely distributed in the hills of south and east Nagaland, but it is absent or very rare in the Barail Range.

In Manipur, BirdLife International (2001) listed four sites for the species: Dzuko valley, Karong, Ukhrul and Siroi, and wrongly assumed Phailenkot (a site in Manipur) to be at or near Phaileng in Mizoram (Appendix). I observed live birds from two villages and specimens in four others, plus local people reported the species at eight further sites (Appendix). It appears that the species is still widely distributed in the hills of north-eastern Manipur in Ukhrul district and north-east Senapati district. Elsewhere in the state it is very rare or sparsely distributed. In Tamenglong district, villagers reported that it does not occur along the Barak river, corroborating Higgins (1933–1934) who noted that it occurred only up to the valley of Irang river, a tributary of the Barak. The continued occurrence of this species at Karong and Phailenkot, Senapati district is doubtful in view of the complete habitat destruction and fairly dense human populations at these sites.

In Mizoram, BirdLife International (2001) listed Murlen National Park and Phawngpui (Blue Mountain) National Park for the species (and incorrectly located Phailenkot in Mizoram: see above). I recorded specimens at seven other sites, and local people reported the species at an additional 12 sites. It appears that Mrs Hume's Pheasant is still widely distributed at higher altitudes in east Mizoram, especially in Champhai and Saiha districts and possibly in Lunglei and Serchhip districts.

The species has never been recorded in Assam, although it might be expected to occur in extreme eastern parts of the North Cachar Hills bordering Nagaland and Manipur. However, there were no local reports.

HABITAT AND POPULATION

The areas where Mrs Hume's Pheasant were reported to occur are hilly or mountainous, with tropical evergreen forest at lower altitudes (up to 1,200–1,500 m) and subtropical broadleaved forest on hilltops. The pheasants occurred in both habitats; in the lower altitude tropical forests they favoured forest edges bordering abandoned *jhum* areas (slash-and-burn shifting cultivation). Birds were reported to occur at c.1,000–2,200 m in Nagaland (possibly higher at Saramati), c.1,000–2,750 m in Manipur and c.1,000–2,100 m in Mizoram. This accords well published information: 850–2,000 m in north-east India (Ali and Ripley 1987) and 1,200–2,800 m in adjacent areas of Myanmar (Smythies 1986). I estimate from maps and field surveys that the area of remaining habitat (including undisturbed areas of secondary forest) at suitable altitudes is very approximately 1,600, 1,700 and 1,300 km² respectively in

Nagaland, Manipur and Mizoram. Particularly important districts in terms of area of suitable remaining habitat include Phek and Kiphire (Nagaland), Ukhrul and Senapati (Manipur), and Champhai (Mizoram). Population density estimates for Mrs Hume's Pheasant in China range from 8.9 to 33 individuals per km² (Lu Taichun 1991, Li Xiangtao 1996). Taking the lowest estimate, and assuming that pheasants occupy just 10% of the 4,600 km² of potential habitat, a minimum population size of 4,000 birds seems likely. This suggests that McGowan and Garson's (1995) estimate of c.1,000 for the *humiae* subspecies in north-east India and 'a few thousand individuals' in total may be an underestimate.

THREATS

Habitat loss is a major threat to Mrs Hume's Pheasant. Forest is mainly lost through felling of trees and clearance for *jhum* cultivation. Closed-canopy forest cover declined from 43% to 21% during 1972–1995 in Nagaland, 51% to 22% during 1980–1995 in Manipur and 63% to 21% during 1972–1995 in Mizoram (NRSA 1983, FSI 1997). Mrs Hume's Pheasant favours forest edge with good ground cover, as is found in older abandoned *jhums*. However, the time that *jhums* are left fallow has become reduced from 10–20 years to 3–4 years, so the extent of suitable habitat is declining. During winter, accidental and deliberate fires destroy large areas of habitat. Habitat loss also results in fragmentation, which is particularly conspicuous in Mizoram where the remaining suitable habitat is found in isolated pockets.

The ultimate cause of increasing habitat destruction is the very rapid human population growth. During 1971–2001, the population grew from 0.33 to 0.89 million in Mizoram, 0.5 to 2.0 million in Nagaland, and 1.1 to 2.4 million in Manipur. Since the bulk of the rural population practice *jhum* cultivation as their main occupation, continuing large-scale destruction of natural habitat seems inevitable.

At present there are only five protected areas in the range of Mrs Hume's Pheasant. In Manipur, it has not been reported from any protected area. In Mizoram, it has been recorded in Murlen National Park (150 km²), Lengtung Wildlife Sanctuary (80 km²) and Phawngpui (Blue Mountain) National Park (50 km²), which together cover c.21% of the potential habitat in Mizoram. In Nagaland, it has been reported from the tiny Fakim Wildlife Sanctuary (6.4 km²) where it appears to be very rare. All these together cover only c.6 per cent of the total potential habitat in these three states.

Trapping with crude snares and shooting with guns are major threats throughout the range of the species. All the tribes inhabiting the hills of Nagaland, Manipur and Mizoram hunt birds for food. Trappers target all galliforms, not Mrs Hume's Pheasant specifically. The species has been accorded the highest protection under the Wild Life (Protection) Act (1972) of India. However, most villagers are unaware of this legal status. Even in protected areas the enforcement is inadequate. Trade in the species is insignificant. One live bird believed to be from Myanmar was on sale at

Champhai market in Mizoram on 6 January 2001 (Zachuanga *in litt.* 2004). A male caught near Heka, Senapati district, Manipur was found for sale in nearby Poilwa village, Nagaland for Rs 500 (c.\$10) in 1999.

Guerrilla insurgency is still significant in Manipur, but is no longer a problem in Mizoram and Nagaland. While the extremists themselves do not harm wildlife in most cases, lawlessness leads to increased illegal felling and poaching.

RECOMMENDATIONS

Protected areas should be designated at Saramati-Fakim (500 km²) and Mt Ziphu (50 km²) in Nagaland, Shiroy (50 km²) and Anko Range (400 km²) in Manipur. Smaller community-run sanctuaries (<10 km²) should be established near Chizami-Luzaphemi and Reguri-Lepthori in Nagaland, near Kamjong and Jessami in Manipur, and near Ngur, North Diltlang and Artlang in Mizoram. Existing protected areas should be extended at Murlen, Lengteng and Phawngpui in Mizoram. Within protected areas there needs to be better control of poaching, *jhum* cultivation and fire, and environmental awareness programmes are needed in fringing villages. Ecotourism could be developed considerably. Finally, family planning programmes are needed throughout the region.

ACKNOWLEDGEMENTS

I would like to thank the Oriental Bird Club for the Forktail-Leica Award of 2000, which helped greatly in the field. For assistance in the field, I would like to thank the following in Manipur: R. K. Ranjan Singh, Sameer Khan, K. Muivah; in Mizoram: N. Pradhan, M. Goswami; in Nagaland: Thomas Kent, Khekiho Sohe, N. Keditsu; T. Imlong, S. Yingle Theviiry of Letsam, Thepukedu of Chizami, Thozhupu Mekrisu of Luzaphemi, Kote of Reguri, H. Shou and T. Torechu (our host at Pungro); in Guwahati: Ratul Talukdar and Hakim of The Rhino Foundation for Nature in North-east India. Special thanks go to my late father, Alauddin Choudhury, who introduced me to Manipur in 1988 and with whom I saw my first live Mrs Hume's Pheasant at Imphal Zoo. He was also of constant help during my subsequent field trips to Manipur and Nagaland.

REFERENCES

- Ali, S. and Ripley, S. D. (1987) *Compact handbook of the birds of Indian subcontinent*. Bombay: Oxford University Press.
- Anwaruddin Choudhury, Deputy Commissioner (District Magistrate), Baksa. Correspondence: Rhino Foundation, Guwahati 781 007, Assam, India. Email: badru1@sify.com
- Baker, E. C. S. (1921–1930) *The game birds of India, Burma and Ceylon*. Bombay: Bombay Natural History Society.
- Baker, E. C. S. (1922–1930) *The fauna of British India: birds*. London: Taylor and Francis.
- BirdLife International (2001) *Threatened birds of Asia: the BirdLife International Red Data Book*. Cambridge, U.K.: BirdLife International.
- BirdLife International (2004) *Threatened birds of the world 2004*. CD-ROM. Cambridge, U.K.: BirdLife International.
- Choudhury, A. U. (1992) Wildlife in Manipur: a preliminary survey. *Tigerpaper* 19(1): 20–28.
- Choudhury, A. U. (1997) The imperiled biodiversity of Nagaland. *Sanctuary Asia* 17(2): 38–45.
- Choudhury, A. U. (1998) Manipur: a biodiversity threatened. *Sanctuary Asia* 18(4): 30–39.
- Choudhury, A. U. (2000) *The birds of Assam*. Guwahati, India: Gibbon Books and WWF-India.
- Choudhury, A. U. (2001) Some bird records from Nagaland, north-east India. *Forktail* 17: 91–103.
- FSI (1997) *The state of the forest report*. Dehra Dun, India: Forest Survey of India.
- Fuller, R. A. and Garson, P. J., eds. (2000) *Pheasants: status survey and conservation action plan 2000–2004*. Reading, U.K. and Gland, Switzerland: Pheasant Specialist Group and World Pheasant Association.
- Ghose, D. (1997) Report of the Blyth's Project: study conducted between February and May 1997. Unpublished interim report.
- Ghose, D. (2000) Hume's Pheasant sightings in Mizoram, India. *Tragopan* 12: 14.
- Han Lian-xian (1997) Study on distribution and habitat of *Syrmaicus humiae* in Yunnan. *Chinese J. Biodiv.* 5 (3): 185–189.
- Higgins, J. C. (1933–1934) The game birds and animals of the Manipur state with notes on their numbers, migration and habits. *J. Bombay Nat. Hist. Soc.* 36: 406–422.
- Katju, D. (1996) Pheasants in Mizoram, India; an impression. *Tragopan* 5: 9–10.
- Kaul, R., Ahmed, A. and Katju, D. (1996) Wildlife studies in north-east India IV. Report to WPA/Peter Scott Trust. Unpublished report.
- Li Xiangtao (1996) *The gamebirds of China: their distribution and status*. Beijing: International Academic Publishers.
- Lu Taichun, ed. (1991) *The endangered wild galliformes in China*. Fuzhou, China: Fujian Science and Technology Publishing House. (In Chinese).
- McGowan, P. J. K. and Garson, P. J. (1995) *Pheasants: status survey and conservation action plan 1995–1999*. Gland, Switzerland: IUCN.
- NRSA (1983) *Mapping of forest cover in India from satellite imagery, 1972–75 and 1980–82. Summary Report: North Eastern States/Union Territories*. Hyderabad, India: National Remote Sensing Agency.
- Ripley, S. D. (1952) A collection of birds from the Naga Hills. *J. Bombay Nat. Hist. Soc.* 50: 475–514.
- Robson, C. R. (1999) From the field. *Oriental Bird Club Bull.* 29: 52.
- Smythies, B. E. (1986) *The birds of Burma*. Third edition. Liss, U.K.: Nimrod Press, and Pickering, Ontario: Silvio Mattachione and Co.

APPENDIX

Sites in Nagaland, Manipur and Mizoram where Mrs Hume's Pheasant has been recorded or reported.

No.	Site (district)	Coordinates	Altitude (m)	Months visited	Abundance	Source of record
Nagaland						
1	Pungro (Kiphire)	25°51'N 94°54'E	1,400	Oct 2001	B	P
2	Thanamir (Kiphire)	25°45'N 94°55'E	2,050	Oct 2001	C	P
3	Fakim (Kiphire)	25°48'N 94°56'E	1,900	Oct 2001	C	P

No.	Site (district)	Coordinates	Altitude (m)	Months visited	Abundance	Source of record
4	Chizami (Phek)	25°36'N 94°24'E	1,400	Oct 2001, Feb 2002	A	P
5	Luzaphemi (Phek)	25°40'N 94°30'E	>1,200	Feb 2002	A	P
6	Meluri (Phek)	25°41'N 94°37'E	>1,100	Oct 2001, Feb 2002	B	P
7	Lepthori (Phek)	25°37'N 94°37'E	>1,200	Oct 2001	A	P
8	Reguri (Phek)	25°35'N 94°39'E	>1,100	Oct 2001	A	P
9	Thewaty (Phek)	25°32'N 94°47'E	1,100	Feb 2002	A	P
10	Letsam (Phek)	25°35'N 94°48'E	1,000	Feb 2002	B	P
11	Southern Mon (Mon)	26°27'N 95°00'E	>1,000	Feb 2004	C	L
12	Noklak (Tuensang)	26°12'N 95°00'E	1,100–1,500	Feb 2004	C	L
13	Ziphu (Phek)	25°39'N 94°45'E	1,600–2,200	Feb 2002	C	L
14	Dzudu-Zanibu (Phek)	25°41'N 94°21'E	1,000–2,200	Feb 2002	C	L
Manipur						
15	Heka (Senapati)	25°30'N 93°54'E	<1,700	Feb 2002	B	Live bird offered for sale
16	S of Dzuku (Senapati)	25°34'N 94°00'E	< 2,000	Jan 2001	B	P
17	Jessami (Ukhrul)	25°37'N 94°32'E	1,000–1,300	Oct 2001, Feb 2002	A	P
18	SW of Jessami (Ukhrul)	25°35'N 94°29'E	1,000–1,400	Oct 2001, Feb 2002	A	P
19	Shiroi (Ukhrul)	25°07'N 94°30'E	1,400–2,750	Jan 1996	A	P; 1 male seen in Jan 1996
20	Kamjong (Ukhrul)	24°53'N 94°31'E	1,000–1,700	Jan 1996	A	Pair captured and sent to Imphal zoo (Choudhury 1992)
21	W of Thingngat (Churachandpur)	c.24°12'N 93°30'E	>1,000	Jan 2001	C	L
22	Waphemei (Senapati)	25°30'N 94°25'E	>1,200	Jan 2001	B	L
23	Phuba (Senapati)	25°25'N 94°21'E	>1,200	Jan 2001	C	L
24	Shongyangjang (Senapati)	25°18'N 93°55'E	>1,000	Jan 2001	B	L
25	Haijol (Tamenglong)	25°03'N 93°50'E	>1,200	Jan 2001	C	L
26	Anko Range (Ukhrul)	26°07'N 94°36'E	>1,400	Jan 1996	C	L
27	Kampang (Chandel)	24°26'N 94°12'E	>1,050	Jan 2001	C	L
28	Mulam (Churachandpur)	24°12'N 93°42'E	>1,000	Jan 2001	C	L
29	Heikha (Chandel)	24°05'N 93°55'E	>900	Jan 2001	C	L
30	Phailenkot (Senapati)	25°21'N 94°02'E	>1,400	Jan 2001		1940 specimens (BirdLife International 2001)
31	Karong (Senapati)	25°19'N 94°03'E	>1,300	Jan 2001		1950–1951 specimens (BirdLife International 2001)
32	Ukhrul (Ukhrul)	25°18'N 94°23'E	1,700–2,000	Jan 1996		Pre-1918 specimen (BirdLife International 2001)
Mizoram						
33	Lamzawl (Champhai)	23°50'N 93°09'E	1,000–1,200	Feb 2001	C	P
34	Lengteng WS (Champhai)	23°50'N 93°13'E	1,000–2,100	Feb 2001	A	P
35	SW of Rabung (Champhai)	23°38'N 93°07'E	>1,000	Feb 2001	C	P
36	Zawbawk (Champhai)	23°38'N 93°09'E	>1,000	Feb 2001	C	P
37	Murlen NP (Champhai)	23°37'N 93°18'E	1,000–1,600	Feb 2001	A	P; also Kaul <i>et al.</i> (1996); 1 male seen in Feb 2001
38	N of Diltlang (Champhai)	23°37'N 93°22'E	1,300–1,960	Feb 2001	B	P
39	Ngur (Champhai)	23°32'N 93°22'E	1,300–2,070	Feb 2001	A	P
40	Artlang (Champhai)	23°27'N 93°12'E	1,500–1,950	Feb 2001	C	P
41	Phawngpui (=Blue Mountain) NP (Saiha)	22°37'N 93°01'E	1,000–2,100	Apr 2000		Katju (1996), Ghose (1997, 2000); 1 male seen in Apr 2000
42	Surh Tlang (Champhai)	23°57'N 93°13'E	1,100–2,200	Feb 2001	C	L
43	Vangtlang (Champhai)	23°20'N 93°06'E	>1,100	Feb 2001	C	L
44	Zapui (Champhai)	23°13'N 93°16'E	1,000–2,150	Feb 2001	C	L
45	Tantlang (Champhai)	23°09'N 93°15'E	1,000–2,100	Feb 2001	C	L
46	Lurh Tlang (Champhai)	23°03'N 93°15'E	1,000–2,100	Feb 2001	C	L
47	Hrang Tuarzo (Serchhip)	23°06'N 93°05'E	1,100–2,000	Apr 2000	C	L
48	Lungreng (Serchhip)	23°03'N 93°01'E	1,000–2,000	Apr 2000	C	L
49	SE of Chawngtui (Lunglei)	23°02'N 93°01'E	1,100–1,950	Apr 2000	C	L
50	Purun (Lunglei)	23°03'N 93°00'E	1,000–1,900	Apr 2000	C	L
51	SE of S Vanlaiphai (Lunglei)	22°48'N 93°00'E	1,000–1,850	Apr 2000	C	L
52	S Lungleng (Lunglei)	22°54'N 92°58'E	1,000–1,800	Apr 2000	C	L
53	Mawma (Saiha)	22°18'N 93°06'E	1,200–2,100	Apr 2000	C	L

Key

A = not uncommon; B = rare; C = very rare; P = preserved specimen; L = local reports (see methods).