

Plate 9.
Dorsal view of
two immature
Carpacoccyx
viridis. Photo:
authors.

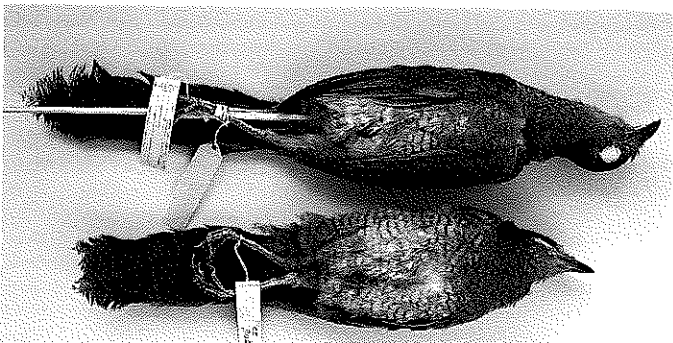


Plate 10.
Ventral view
of specimens
in Plate 9.
Photo:
authors.

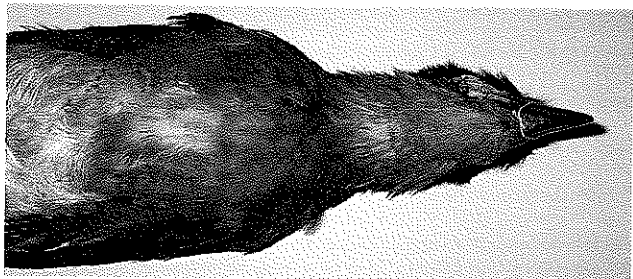


Plate 11.
Ventral view
of upper body
of an
immature
Carpacoccyx
radiatus.
Photo: M.
LeCroy.



Plate 12.
Ventral view
of lower body
of the
specimen in
Plate 11.
Photo: M.
LeCroy.

The habitat, status, vocalizations and breeding biology of Blue-rumped Pitta *Pitta soror annamensis* in central Vietnam

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The Blue-rumped Pitta *Pitta soror* is a poorly-known Indochinese endemic that also occurs on Hainan. Within this rather limited range, six subspecies are described (Lambert and Woodcock in press). Size and the colour of the crown and nape are the main features used to separate these. During six weeks fieldwork as part of a BirdLife International/IUCN Species Survival Commission survey for Vietnamese *Lophura hatinhensis* and Imperial Pheasants *L. imperialis* in 1994 (Lambert *et al.* 1994, Eames *et al.* in press) and follow-up work by BirdLife International in 1995, new data were collected on *P. s. annamensis*, the subspecies occurring in central Annam and southern Laos. Fieldwork was conducted in June and July 1994 and in June 1995. The observations documented below refer to birds observed in the lowlands of Ha Tinh and Quang Binh provinces, Vietnam.

HABITAT and STATUS

Observations in the Annamese lowlands indicate that Blue-rumped Pittas are tolerant of a wide range of habitat types. Two nests were found in 1994 in dark, damp flat areas of primary riverine forest with a dense understorey dominated by saplings of broad-leaved trees. In the Vu Quang Nature Reserve, Ha Tinh Province (18°20'N 105°20'E), this species was regularly observed in this habitat. In contrast, adults with dependent young were also observed on very steep, dry slopes dominated by fan palms *Licuala* in the understorey, and amongst tangles of vines in dark areas of primary and secondary forest on jagged limestone outcrops in Phong Nha Historical and Cultural Reserve, Quang Binh Province (17°25'N 106°15'E). In all of these areas, Blue-rumped Pitta was found to occur sympatrically with Bar-bellied Pitta *Pitta elliotii*. The incidence of calling and of observations suggested that both these species were common in forested habitats. However, few Blue-rumped Pittas were observed in the bamboo-dominated secondary forests around Ho Ke Go lake, Ha Tinh Province (18°06'N 105°56'E), and in this area Blue-rumped Pittas were observed most commonly on the slopes and valleys on which more closed-canopy forest was present: in 1995, a third nest was discovered in Ky Anh District (by J.C.E. and N.C.) on an east-west ridge at 350 m in logged forest.

VOCALIZATIONS

Several calls of Blue-rumped Pitta have been described, all of which are reported to be given infrequently. In Tonkin, the commonly heard call is reported to be a single full note 'waeoe' or 'weeya', with only a slight inflection. This call is generally repeated at intervals of at least seven seconds. Other calls described are a sharp, breathless 'tew', similar to the first syllable of the call of Rusty-naped Pitta *P. oatesi*, and a longer, falling-tone, mellow 'tiu' (Lekagul and Round 1991). Calls most frequently heard in the Annamese lowlands of Vietnam were quiet, rather frog-like notes: 'ppew', repeated at short intervals.

The alarm note has been described as a short and rather quiet 'cho', usually repeated after a pause of more than six seconds. In Vietnam, a different alarm note was heard: when an adult male with dependent spotted young was approached by an observer, in Vu Quang Nature Reserve, the adult repeatedly gave a single, sharp, explosive note, 'hwip' or 'hwit', from a perch on a horizontal vine some 30 cm off the ground. This bird was very confiding, and responded immediately to playback of its own alarm call.

BREEDING BIOLOGY

No nests of this species have previously been described. During the surveys in the Vu Quang Nature Reserve, nests were found on 4 and 6 June. A recently fledged juvenile was observed in central Annam on 6 July 1994, whilst older fledglings were observed at various sites and on various dates from 13 June to mid-July. The recently fledged juvenile observed was at the base of a jagged limestone outcrop in Phong Nha, raising the possibility that this species could sometimes build its nest in crevices in limestone.

The nest found at Vu Quang on 4 June contained three eggs, but was predated on 8 June, when the nest was found to be partly destroyed and two eggs had disappeared (the remaining egg was cold). The nest discovered on 6 June contained three recently hatched young. Only females were seen incubating the eggs and young of these nests. The two nests were situated within 100 m of each other, in primary forest: one on the flat floodplain of a large river at 30 m altitude, the other in a flat area of forest adjacent to a stream at c. 50 m altitude (the two areas separated by a cliff). The latter nest was situated about 2.4 m off the ground in an unusual narrow fold in the trunk of a large tree, formed at the point where two buttresses intersected.

The base of the nest was built primarily of twigs, many of which were branched; they were up to 15-20 cm long and mostly 4-6 mm wide, though one twig was 8 mm wide. Mixed in with the twigs were a few rootlets and dead leaves. The roof and sides of the nest were of dead leaves, the majority being

from broad-leaved trees, but mixed in were 1-2 pale, long strips of palm leaf. The rear and sides of the nest cavity were lined with leaves, whilst the nest cup was made with black rootlets of 1-2 cm in diameter. The total height of the nest was about 22 cm, with an entrance hole 8 cm high and 6 cm wide.

The second nest, containing three pulli that were incubated by a female (Figure 1), was situated in a 4.5 m tall understorey tree with spiny, holly-like leaves and trunk diameter of c. 8 cm at breast height. The nest was at the base of the tree's canopy, where it was placed on a fork at 2.3 m off the ground and within 30 cm of an intact but disused wasps' nest that hung from the same tree. The nest base was made of large twigs, the biggest measuring 74 cm long and 1 cm wide. These long twigs extended forward from the base to form a platform in front of the nest hole, on which the adults could land. The nest was 22 cm high and 20 cm wide externally, with the platform extending some 15 cm out from the entrance. The entrance was 8.5 cm wide and 9.5 cm high, and the distance from the entrance hole to the rear of the nest cavity was 15 cm. The nest sides and roof were constructed of the dry leaves of broad-leaved trees, with only one skeletonised. The nest cavity contained a nest cup made of fine flexible twigs and rootlets up to 16 cm in length.

The nest found by J.C.E. and N.C. on 23 June 1995 was situated 1.3 m off the ground in a 4.5 m-tall rattan palm, and contained three chicks. It was situated amongst the branching fronds of the rattan (probably *Calamus*), and was an almost spherical dome made with dry dicotyledonous and dry rattan leaves and twigs. The nest was some 24 cm wide, 25 cm high and 30 cm deep. The entrance was 9 cm wide and 8 cm high, whilst the chamber was 17 cm deep and 13 cm wide. A 7 cm-wide platform jutted out 6 cm in front of the nest entrance.

On 24 June 1995, this nest was under observation by J.C.E. and N.C. from 07h00-11h37. During this period no feeding visits were observed, but at 08h15 one of the parents sprang up onto the platform, where it remained absolutely motionless, not even blinking, and both observers were able to approach the nest to within 2 m. The bird appeared to be in a trance-like state and had not moved when the observations finished at 11h37. The pulli from this nest were estimated to be 2-3 days old and weighed 11, 17 and 17 g, suggesting asynchronous hatching.

The eggs were pinky-white with large chocolate-brown speckles and blotches that were concentrated at the broadest end and smaller spots near the narrow end. One egg measured was 2.9 cm long and 2.2 cm wide.



Blue-rumped Pitta *Pitta soror annamensis*

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On the seasonality and distribution of Gurney's Pitta *Pitta gurneyi*

PHILIP D. ROUND

Since its rediscovery in 1986, almost nothing further has been published on the biology or conservation status of Gurney's Pitta *Pitta gurneyi*. Fieldwork carried out during 1987-1988 (Gretton *et al.* 1993) was restricted to the months March-August; there is an almost complete lack of information for other times of year.

This paper discusses the seasonal distribution of records based on data acquired during March 1990 to February 1993 at Khao Pra-Bang Khram Non-Hunting Area (Khao Nor Chuchi), Krabi and Trang provinces, peninsular Thailand.

The synthesis in Collar *et al.* (1986) implied that while Gurney's Pitta was probably present year-round in southern Thailand, with specimen records from all months except November and June, and a sight record involving a nesting pair in June, it was perhaps a seasonal non-breeding visitor to southern Myanmar (Burma). This was based on an examination of Burmese specimen records, which came from the months of December through June, combined with Davison's assertion (Hume and Davison 1878) that, in south Tenasserim, the species normally began to appear around 10 February; remained scarce until mid-April; became more numerous until the end of May and then disappeared with the onset of the monsoon. Some birds apparently stayed on into July. Thus for the months August to November inclusive, Gurney's Pitta was apparently absent from southern Myanmar and Davison speculated that Burmese birds went to breed 'probably to Siam or into the higher portions of the hills dividing Siam from Tenasserim'.