

## BUSTARD-QUAILS OR HEMIPODES

### Order TURNICIFORMES

IN the first volume of this work the bustard-quails were included under one heading with the true game birds, but as explained above such treatment seems to be incorrect even in a popular book of this character, recent observations, based largely on certain bones of the skull, having shown beyond any reasonable doubt that these birds have undoubted claims to be regarded as a quite distinct group of equal standing with the true *Galliformes*, but perhaps somewhat more closely allied to the *Columbiformes*, or pigeons and doves.

Superficially very like quails, the bustard-quails may be distinguished by the presence of only three toes ; there is no small hind toe.

#### KEY TO THE SPECIES HERE DESCRIBED

- I { Breast barred across . . . . . *Turnix javanica atrigularis*, p. 30  
  { Breast uniform in the centre . . . . . *Turnix tanki blanfordi*, p. 32

#### *Turnix javanica atrigularis*<sup>1</sup>

##### The Malayan Bustard-Quail

Vol. I., p. 2.

*Hemipodius atrigularis*, Eyton, *P.Z.S.*, 1839, p. 107 (Malacca).

*Turnix plumbipes*, Kelham, *Ibis*, 1882, p. 5.

*Turnix taigoor* (part), Ogilvie Grant, *Cat. Birds, Brit. Mus.*, xxii, 1893, p. 530.

*Turnix javanica atrigularis*, Edgar, *Bull. Raffles Mus.*, 8, 1933, p. 121 (Nidification).

**Malay Name.**—Puyoh : nok khum-maw (*Siamese*).

**Description.**—*Adult female.*—General colour above, rufous brown, the feathers of the head irregularly spotted with white. Scapulars, back, rump,

<sup>1</sup> This species is here left with the name under which it appeared in Volume I., but it should be noted that for technical reasons the name has since been changed to *Turnix suscitator atrigularis* and that the bird occurring in Siam and Tenasserim has been separated as *T. s. interruptens* Rob. and Baker, on account of its more uniform upper parts. To the new race, or subspecies, must be referred all Malayan birds found north of about the latitude of Penang.

upper tail coverts and tail, irregularly mottled with black, usually with a large, subterminal spot on each web, the scapulars with the margins of the feathers edged with whitish buff. Feathers of the forehead, black, with white tips. Lores, sides of the head and throat and neck, white, the feathers edged with black. Primaries, primary coverts and secondaries, brownish black, the primaries narrowly edged with buffy white, the outer secondaries irregularly barred on the outer web. Wing coverts, sandy brown on the inner webs, barred with black and yellowish buff on the outer webs. Throat and middle of the chest, black; sides of chest and breast, black, barred with buff or buff with guttate black spots. Rest of the under parts, rufous buff, paler on the middle of the abdomen, richer on the flanks and under tail coverts.

*Adult male*.—Differs from the female in having the top of the head less spotted with white. Throat, white, the centre of the breast, barred black and pale buff; general tone of the under parts much paler. Size smaller than the female.

*Immature*.—The immature females are at first like the males and lack the black throat. Some immature birds seem to have less black on the upper parts than the adults.

**Soft Parts**.—Bill and feet, plumbeous or plumbeous green, irides usually straw-colour or yellowish white.

**Dimensions**.—*Female*: total length, 5.6 in.; wing, 3.5 in.; tail, 1.3 in.; tarsus, 0.9 in.; bill from gape, 0.7 in. *Male*: total length, 5.2 in.; wing, 3.2 in.; tail, 1 in.; tarsus, 0.85 in.; bill from gape, 0.65 in.

**Range in the Malay Peninsula**.—Throughout the Malay Peninsula in suitable localities and on the islands of Salanga (Junk Zeylon), Penang, Singapore, Koh Samui and Koh Pennan.

**Extralimital Range**.—Very closely allied races range throughout India, Burma, Siam and French Indo-China, South China, Hainan and Formosa, Java, Ceylon, Billiton and Sumatra, but not to Borneo. There is much local variation, chiefly in the presence or absence of a rufous nuchal collar and in the rufous element in the mottling of the feathers of the back and mantle, and on these characters the species has been divided into several named races. Broadly speaking, the most richly coloured birds occur in the regions of highest rainfall, the brightest of all being from Java and Ceylon.

**Nidification**.—The eggs are almost invariably four in number, somewhat pointed at one end, and are pale greyish olive, thickly spotted with brownish olive and brown, the markings being often more densely congregated in a zone at one end. The shell is usually somewhat glossy. They measure about 0.92 by 0.78 in.

The nest is usually among lalang grass (*Imperatora koenigi*), often under the shelter of a Straits Rhododendron bush (*Melastoma*), and in the Malay Peninsula is often little more than a slight depression in the grass, but is sometimes lined with bents and a few dead leaves. Mr A. T. Edgar, who has studied the species in Perak, writes: "the front of the nest is left open, and the sides are protected by sloping walls of dry grass, often intertwined with the living grass stems, and rising at the back to two or three inches in height.

Most of the nests face north or west, a few south. I have not so far found one facing due east."

In Selangor the breeding season generally appears to be the months of June and July, but is very variable. In the north it is earlier. In Perak, Mr A. T. Edgar considers that the breeding season extends from January to June.

**Habits.**—The bustard-quail is common throughout the Peninsula wherever there is open country with much high grass, in situations similar to those affected by the button-quail, though, as a rule, the present bird is not so much seen on rice stubbles. It is usually found singly or in pairs, and is hard to flush, unless with a dog. The food in the main is grass seed, though insects, and especially larval grasshoppers and locusts, are readily taken. The note is described as intermediate between a coo and a soft, booming purr. It is far more frequently uttered by the female than the male, is often heard at night, and, according to Stuart Baker, has not infrequently been mistaken for the purr of a tiger.

In this and allied hemipodes there is a reversal in the usual rôle of the sexes, the female being the larger and more brightly coloured bird and courting the male, while the latter performs the duties of incubation. In the breeding season the females are very pugnacious, and the Malays take advantage of this fact by using a decoy in an ingeniously constructed cage (gebak puyok), which closes as soon as the wild bird enters to attack the inmate. The birds so captured are pitted against each other, and large sums used often to be staked on a specially proficient bird.

*Turnix tanki blanfordi*

**The Burmese Bustard-Quail**

*Turnix blanfordi*, Blyth, *Journ. Asiat. Soc. Bengal*, xxxii., 1863, p. 80 (Pegu, Lower Burma); Ogilvie-Grant, *Cat. Birds, Brit. Mus.*, xxii., 1893, p. 542; Blanford, *Faun. Brit. Ind., Birds*, iv., 1898, p. 155.

*Turnix tanki blanfordi*, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1921, p. 23; E. G. Herbert, *Journ. Siam Soc., Nat. Hist. Suppl.*, vi., 1926, p. 339.

*Turnix maculatus maculatus*, Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), v., 1928, p. 453.

**Malay Name.**—Unrecorded.

**Description.**—*Adult female.*—Under parts, deep buff, palest on throat and centre of abdomen, which are nearly white, darkest on foreneck and upper breast, which are so richly coloured, almost orange-buff, as to form a distinct patch; large bold black spots on sides of neck, breast and flanks. Top of the head, mixed black and pale rufous, a paler, ill-defined, buff centre stripe. Upper parts, mixed grey and dull brick-red, the whole very finely vermiculated with black usually with longitudinal buff spots and often with blackish-brown blotches; outer aspect of wings, yellowish buff with large black spots. Primary

coverts, grey with pinkish-brown tips ; wing quills, grey, narrowly edged with pinkish brown on the outer web, the edging of the first or first two primaries pale yellow, almost white ; inner secondaries freckled, the innermost feathers spotted with blackish and buff at the tips. Lining of wing and axillaries, grey, sometimes washed with brown. Tail feathers, greyish brown, freckled or irregularly spotted with blackish and with paired buff spots.

*Adult male*.—Less red on the hind neck.

**Soft Parts**.—Iris, white ; bill, dark horn, yellow at the base of the lower mandible and on the edges ; feet, pale yellow.

**Dimensions**.—*Female*.—Total length, 7 in. ; tail, 1·4 in. ; wing, 3·9 in. ; tarsus, 1·1 in. ; bill from gape, 0·8 in. *Males* are slightly smaller : total length, 6·5 in. ; wing about 3·6 in.

**Range in the Malay Peninsula**.—Found only just within the extreme northern limit of our area. Tasan and the Pakchan estuary at lat. 10° N. represent the southernmost limit of this bustard-quail.

**Extralimital Range**.—From its southern limit in Peninsular Siam northwards through French Indo-China, Siam and Yunnan, to Manchuria ; Tenasserim and Burma to Assam. The rest of India is inhabited by the very closely related but rather smaller typical form, *Turnix t. tanki*.

**Nidification**.—According to Mr E. G. Herbert, the nest, which is placed on the ground, is a neat little ball of dead grass, built in a slight cup-shaped hollow under cover of a tuft of grass, and with the entrance at the side. In Siam the nesting season is July and August. Four eggs are laid ; average size of seven Siamese eggs, 8·96 by 7·2 in. Mr Herbert states that Siamese eggs of this species are like those of *Turnix dussumieri* in colour and markings. The latter he describes as "the darker eggs have a pale yellowish-brown ground-colour, marked with numerous freckles and blotchy or streaky spots of a rich deep brown or burnt umber, generally more dense towards the large end. The paler variety has a greyish-white ground-colour, with smaller markings in the form of specks and spots of dark brown, with cloudy pale purple and yellowish-brown specks."

**Habits**.—Robinson found this quail common in grass-lands at Tasan. Blanford states that it is generally found in grass about clearings, in forests, in gardens, etc.