McMillan, W. N.
Mildmay, G. St. John.
Mildmay, Mrs.
Montgomery, Colonel J.
Muir, J.
Neuman, B.
Osborne, G. H.
Oxley, F.
Partington, H. B.
Peffers, John P.
Percival, A. B.
Platts, W. A. F.
Raphael, P. A.
Ridley, M. A.
Rogers, Rev. K. St. Aubyn.

Ross, Major C. J.
Sergeant, John.
Seth-Smith, M. P.
Scholefield, S. W. J.
Silberrad, H.
Someren, Dr. R. Van.
Stordy, R. J.
Talbot, A. A.
Tannahill, A. C.
Watkins, O.
Watson, C. R.
Weeks, R.
Wilson, W. MacLellan.
Wright, Rev. G. W.

EAST AFRICA AND UGANDA FRANCOLINS

By F. J. JACKSON.

The following notes on the Francolins of East Africa and Uganda are written in the hope that all those interested in the game-birds may be able to identify the various species they meet with.

Very little is known of their breeding habits, but it is hoped that residents in the districts in which some of the species are found will keep careful notes on such an important question, and will record their observations in this Journal.

At present game-birds of all kinds are shot throughout the year, but until we can obtain authentic information regarding the breeding seasons, it is practically impossible even to suggest a close season, so much needed and which all sportsmen and lovers of Nature would only be too glad to see introduced.

The descriptions of the birds are taken from the 'Catalogue of the Birds in the British Museum' by Mr. W. R. Ogilvie-Grant, to whom I am also indebted for the description of F. kikuyuensis and of the females of F. hubbardi and F. uluensis, which were described subsequent to the publication of the Catalogue.

We are also indebted to Mr. Ogilvie-Grant for allowing us to reproduce the coloured plate of F. hubbardi, the original of which, drawn by Major H. Jones, is in his collection.

FRANCOLINUS GEDGEI

Francolinus gedgei, OGILVIE-GRANT.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 163. 'Sharpe's Hand-List,' Vol. I, page 25. 'Shelley's Birds of Africa,' Vol. I, page 181. 'Reichenow's Vögel Afrikas,' Vol. I, page 481.

The type of this fine Francolin was obtained by my friend Mr. Ernest Gedge on the north-eastern foot-hills of Mount Elgon in 1890. The country in which it was found, in considerable numbers, was a narrow strip of open plain dotted with patches of low scrub, and lying between two long spurs of the mountain.

It was subsequently obtained by Dr. Ansorge at Mondo in Uganda, and at Hoima in Unyoro; and in March 1902 a brace was obtained by myself at Busibika in the Maanja Valley. At the latter place it frequented the bush and long grass on the rocky hillsides, and came out to feed in the 'shambas' in the early morning and evening.

It is easily recognised by its large size and pearly white throat.

Male.—Top of the head and the ground colour of the upperparts very dark brown, with narrow white margins on the sides of the feathers; stripe above the eye white; sides of the neck white with black shaft-stripes; chin and throat pearly white; chest and underparts creamy buff with blackish brown club-shaped shaft-stripes to the feathers, some of the flank-feathers being blotched with deep chestnut. Primaries buff, brown along the shaft; the whole of the outer web of the inner primaries barred with dark brown. Iris dark brown; bill dark brown, orange-red at the base; lower mandible orange-red with yellow tip; feet orange-yellow; toes dusky; bare patch behind the eye dull yellow.

Length, 143 inches, wing 7.5 inches, tail 2.8 inches, tarsus 2.4 inches.

Female.—Iris brown; bill dark brown, dark coral-red at

the base; lower mandible coral-red; feet bright coral-red; bare patch behind eye red.

Length 141 inches.

FRANCOLINUS COQUI

Francolinus coqui, SMITH.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 143. 'Sharpe's Hand-List,' Vol. I, page 23. 'Shelley's Birds of Africa,' Vol. I, page 180. 'Reichenow's Vögel Afrikas,' Vol. I, page 492.

It would appear that the range of this small Francolin in British East Africa is confined to the southern portions of the coast regions, and extends inland for, roughly, sixty miles.

In the open country in the vicinity of M'buugu, some eighteen miles north of Rabai, and in most of the more open tracts sparsely dotted with thorn-trees and low scrub, between the Mwachi River and Samburu, it is fairly plentiful, but it is far more often heard than seen.

It is usually found in small coveys of from four to six, and it is to be regretted that such a sprightly game little bird is not more plentiful than it is, as it affords capital sport, being very quick and strong on the wing and not difficult to mark down in the open country it frequents.

The best time to look for it is, undoubtedly, in the evening, as it then rises more readily than in the early morning when its plumage is wet with dew, or later on during the heat of the day when it lies so close that it will almost allow itself to be trodden upon.

Male.—Top of the head and ear-coverts chestnut-brown; rest of the head and nape rufous buff; neck, chest and rest of underparts white shading into buff on the abdomen, flanks and under tail-coverts, and widely barred with black; upperparts a mixture of chestnut and buff with wide bars of black or dark grey, interrupted by wide buff shaft-stripes. Primaries greyish black; tail rufous buff barred with greyish black. Iris orange-red; bill blackish brown; gape and base of lower mandible yellow; feet yellow-ochre.

Length 12 inches, wing 5.5 inches, tail 3 inches, tarsus 1.5 inches.

Female.—Differs from the male in having a black streak

above the eye and passing down the side of the neck; a second black line, commencing in front of the eye, passes along the side of the throat, and completely circumscribes it. Neck and chest dull chestnut mixed with grey and with white shafts; rest of the underparts grey with the bars and markings less regular.

FRANCOLINUS HUBBARDI (PLATE I.)

Francolinus hubbardi, OGILVIE-GRANT.

Ogilvie-Grant, 'Ibis,' 1895, page 378. 'Sharpe's Hand-List,' Vol. I, page 23. 'Shelley's Birds of Africa,' Vol. I, page 180. 'Reichenow's Vögel Afrikas,' Vol. I, page 495.

The type of this Francolin was obtained by the late Rev. E. H. Hubbard of the Church Missionary Society at Nassa on Speke Gulf, Victoria Nyanza.

In British East Africa this little Francolin is, so far as we at present know, confined to the Rift Valley between the Kedong Valley and Baringo, and also the Nyando Valley between Muhoroni and the Kibigori River.

It is usually found in small coveys of from four to six, is a close squatter and difficult to flush. If surprised on open bare ground it will run off in a crouching attitude to the nearest patch of covert and there squat rather than take wing. When flushed and carefully marked down it is even more difficult to make it rise again without the aid of a dog, or several beaters in close formation to quarter the ground thoroughly.

Its shrill call is heard in the early morning and again in the evening, but it is difficult to locate in the open country in which the bird is generally found.

Male.—Top of head dark brown with greyish brown edges to the feathers; sides of face, neck and throat buff; breast and collar round the back of the neck white deeply barred with black; underparts very pale buff; under tail-coverts darker; upperparts a mixture of very dark brown and grey, with buffy white shafts to the feathers, and irregularly barred with dark buff; tail dark brown barred with dark buff. Iris brown; bill brown, gape and lower mandible yellow; feet yellow.

Length $11\frac{1}{2}$ to 12 inches, wing 6 inches, tail $2\frac{1}{4}$ inches, tarsus $1\frac{1}{2}$ inches.



FRANCOLINUS HUBBARDI & 9.

Brit, E. Afr. & Uganda Journal.
PLATE 1.

Female.—Much like the female of F. coqui, but the chest is greyish and the rest of the underparts are whitish buff with narrow black bars on the feathers of the upper part of the breast.

FRANCOLINUS GRANTI

Francolinus granti, HARTLAUB.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 148. 'Sharpe's Hand-List,' Vol. I, page 23. 'Shelley's Birds of Africa,' Vol. I, page 180. 'Reichenow's Vögel Afrikas,' Vol. I, page 496.

The distribution of this Bush-Francolin in East Africa and Uganda is even more remarkable than the foregoing. It is very plentiful throughout the coast-regions, and westward to Kilimanjaro, and thence northwards to Ukamba, where it stops about Machakos and Kitui. It reappears at Baringo and Eastern Kamasia, and there is then another break until Kisumu is reached. Then follows a still greater break, as it is not again met with until the eastern shores of Lake Albert are reached. It is essentially a bird of the bush-country.

Wherever this bird is found it cannot help but make its presence known. In the morning, often throughout the day, in the evening, and on moonlight nights, the cock birds shout out their harsh defiant call, a challenge to every other cock bird within ear-shot. When once heard this call can never be mistaken; there is no other like it in the country.

During the heat of the day it lies up in small coveys of from three to five, often less, but rarely more, under the shade of a bush, where it squats very close, and will allow itself to be approached within a few feet.

It would appear to have two breeding seasons, as it undoubtedly breeds on Manda Island, and near Lamu in May, June, and July, and I have found a nest containing four eggs on the slopes of Ndara in Teita in December. The nest was a small depression scratched by the bird, with a few dry grass-stems as a lining, at the foot of a small bush.

The eggs are remarkable for the extreme thickness and hardness of the shell.

Male.—Top of head dark brown with rusty brown tips to the feathers; stripe above and below eye, chin and throat

white: cheeks, sides of neck and lower throat white with triangular chestnut spots; chest buff with narrower triangular chestnut spots; rest of the underparts buff, finely shaded and pencilled with greyish black except on the middle of the abdomen and vent; upper back, scapulars and wing-coverts chestnut fading into grey-brown in the middle of each feather, and with a wide shaft-stripe of pale buff. Primaries and secondaries brown; rump, lower back and upper tail-coverts grey-brown; tail dark brown. Iris brown; bill brownish black; feet rosy red.

Length 13 inches, wing 5.5 inches, tail 3.5 inches, tarsus 1.7 inches.

Female.—Length 12½ inches, wing 5.3 inches, tail 3 inches, tarsus 1.5 inches.

FRANCOLINUS KIRKI

Francolinus kirki, HARTLAUB.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 149. 'Sharpe's Hand-List,' Vol. I, page 23. 'Shelley's Birds of Africa,' Vol. I, page 180. 'Reichenow's Vögel Afrikas,' Vol. I, page 497.

An example of this Francolin was obtained by Dr. Ansorge in the Taru Wilderness, and this is, so far, the only authentic record of its having been obtained in British East Africa.

It might very easily be mistaken for F. granti, from which it differs in having a dark chestnut oblong spot at the end of the shaft on the feathers of the breast and abdomen.

FRANCOLINUS ULUENSIS

Francolinus uluensis, OGILVIE-GRANT.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 151. 'Sharpe's Hand-List,' Vol. I, page 24. 'Shelley's Birds of Africa,' Vol. I, page 180. 'Reichenow's Vögel Afrikas,' Vol. I, page 487.

The Ulu Francolin was first described from specimens obtained by myself at Machakos in February 1889. found in the Rift Valley from Kilimanjaro to Kijabe, which is, I believe, about the limit of its northern range. To the east it extends as far as the Yalta Escarpment, but its western range is as yet unknown.

It is found both in the open plains and amongst low scrub on the banks of water-courses.

At Machakos, in February 1889, this species was plentiful in pairs along the numerous dry water-courses south-west of the station, and was probably about to breed. On July 3, 1905, a hen bird shot near Ngong had three well-developed eggs inside her, which goes to show that this bird has two breeding seasons during the year.

Except during the breeding season it is usually found in coveys of from four to six. When flushed the birds scatter in all directions, and go off with a loud scream, but are not difficult to mark down.

Male.—Top of head very dark brown edged with pale brown; rest of the upperparts grey-brown blotched on one or both webs with black, and with pale buff shaft-stripes; back and tail-coverts greyish brown, barred with buff; a rufous buff stripe above and below the eye, extending to the upper neck, and separated by a triangular patch an inch or more in length of white feathers with black tips; chin and throat white, the marginal feathers tipped with black; chest buff, with one web or the other rich chestnut; breast pale buff, irregularly barred with dark brown. Primaries chestnut shading into brown at their extremities. Iris brown; bill blackish brown; base of the lower mandible yellow; feet dull yellowish brown.

Length $13\frac{3}{4}$ inches, wing 6.5 inches, tail 2.9 inches, tarsus 1.6 inches.

Female.—Similar to the male, but rather smaller. Length $12\frac{3}{4}$ inches, wing $6\cdot 2$ inches.

FRANCOLINUS STREPTOPHORUS

Francolinus streptophorus, Ogilvie-Grant.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 145, Plate I. 'Sharpe's Hand-List,' Vol. I, page 23. 'Shelley's Birds of Africa,' Vol. I, page 180. 'Reichenow's Vögel Afrikas,' Vol. I, page 487.

The range of this Francolin is somewhat remarkable. It was first obtained by myself on March 1, 1890, near Mangiki's on the southern slopes of Mount Elgon, where it was fairly

plentiful; but it was not again met with until 1901 in the Nyando Valley in the vicinity of Fort Ternan and Muhoroni.

It affects rough broken ground on hillsides rather than open grass-country, and is usually found in small coveys of from four to five.

In the early morning, and again in the evening, a cock bird will sit on a stone or small ant-hill and utter its curious tremulous notes, which are so unlike the call of any other Francolin that it completely baffled me for a long time, until one day at Fort Ternan I crawled through the long grass to within a few yards of one, and observed it in the act of calling.

It is rather curious that just about that time my collector Baraka, who is a first-rate observer, was collecting birds on Mount Elgon, and on his return he told me that he, too, had been completely puzzled by the call of this bird until he stalked one and shot it as it sat calling on a small ant-hill hidden in the grass.

Like so many of the Francolins it is a great skulker and is very difficult to flush without the assistance of a dog or several beaters.

I believe it breeds in the Nyando Valley in December and January, and on the slopes of Mount Elgon in March.

Male.—Top of head, ear-coverts, back, wings, rump, upper tail-coverts, and tail umber-brown, the lower back, rump and scapulars largely blotched with rich dark brown on one or both webs, and mostly with white shaft-stripes. Stripe above the eye white; sides of the face and neck bright chestnut, with a white stripe from the eye to the ear-coverts; chin and throat white, some of the feathers tipped with chestnut; back of neck and upper-chest barred with black and white, and forming a wide ring which contrasts strongly with the rest of the plumage; lower-chest and rest of the underparts pale buff, the former crossed with wavy black bars, the flanks with large oblong black blotches on one or both webs of the feathers. Iris light brown; bill dusky brown; gape and base of lower mandible yellow; feet dull yellow.

Length 13 inches, wing 6.2 inches, tail 2.7 inches, tarsus 1.55 inches.

Female.—Differs from the male in having the back, rump and upper tail-coverts barred with buff, and the wing-coverts spotted with the same colour.

Length 11 inches, wing 5.9 inches, tail 2.5 inches, tarsus 1.5 inches.

FRANCOLINUS ELGONENSIS

Francolinus elgonensis, OGILVIE-GRANT.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 157, Plate V. 'Sharpe's Hand-List,' Vol. I, page 24. 'Shelley's Birds of Africa,' Vol. I, page 181. 'Reichenow's Vögel Afrikas,' Vol. I, page 491.

The type of this Francolin was obtained by myself on the north side of Mount Elgon at an altitude of 11,000 feet in February 1890. It was one of a small covey of four. During a recent tour round Mount Kenya, in August, I saw a Francolin—a single bird—at an altitude of about 10,000 feet on the north side of the mountain, but was unable to identify it. I have, however, reason to believe that it belonged to this species, as ten days later I obtained three, a male and two females, out of a covey of six, on the Aberdare Range at an altitude of about 11,000 feet.

It is found on the open rolling grassy downs, and if anything is a closer squatter than most of the open-country Francolins.

Male.—Top of head black, each feather margined with pale rusty brown; back of the neck chestnut, with a black spot at the tip of each feather; back and scapulars a mixture of black and dark brown, barred with pale rusty brown and buff, and with buff shaft-stripes; sides of the face and neck buff, divided from the top of the head, and also from the throat, by mixed black and white lines; throat buffy white bordered by a circular line of black spots; lower throat and chest pale chestnut, the feathers tipped with one or two black spots; breast buff, barred with very dark brown; flanks chestnut, barred with dark brown, and with narrow shaft-stripes of buff; abdomen and rest of the underparts brownish grey, closely barred with dark brown. Primaries and inner secondaries light chestnut barred and mottled with dark brown towards

the tips. Iris brown; bill blackish brown; base of the lower mandible yellowish horn-colour; feet dusky yellow.

Length 16 inches, wing 7.3 inches, tail 3.5 inches, tarsus 2 inches.

Female.—Similar to the male, but smaller.

Length 14.2 inches, wing 6.5 inches, tail 3.2 inches, tarsus 1.8 inches.

FRANCOLINUS KIKUYUENSIS

Francolinus kikuyuensis, OGILVIE-GRANT.

Ogilvie-Grant, 'Ibis,' 1897, page 258. 'Sharpe's Hand-List,' Vol. I, page 24. 'Reichenow's Vögel Afrikas,' Vol. I, page 491.

So far as is at present known, this Francolin is confined to the higher plateaux west of the Rift Valley. Its specific name 'Kikuyuensis' is, I fear, a misnomer for which I must admit responsibility.

The type was obtained on the Uasin-Gishu plateau, but the locality was omitted from the label through an oversight, and as it was sent home in a box of birds obtained in Kikuyu, Mr. Ogilvie-Grant, who described it, not unnaturally inferred that it had been obtained somewhere in Kikuyu.

It frequents the open grassy downs of the Mau, and Uasin-Gishu plateaux, at altitudes between 7000 and 9000 feet, and is found in small coveys of from four to six.

It is a close squatter and rises with a whirr and scream that are quite startling. In the early morning when the grass is wet it is fond of sitting on the top of an ant-hill.

Male.—Top of the head brown with black middles to the feathers, and margined on the sides by a narrow whitish-buff band; sides of the face and neck rust-red; a band of white, black-tipped feathers commences at the base of the uppermandible and passing below the eye surrounds the throat, which is rufous-white, edged externally with rust-red; a small patch of pale rufous-white feathers barred with black on the fore-neck. General colour of the upperparts brown, blotched with black and with buff cross-bars and shaft-stripes; the black markings and buff shaft-streaks being most conspicuous on the mantle, scapulars and innermost secondaries. Rest

of the underparts pale rufous buff, the feathers of the chest with a chestnut patch on either web; sides of the breast and flanks with irregular spots and bars of black and sometimes blotched with chestnut; primaries and secondaries light chestnut, the former mottled with dusky towards the extremity, the latter somewhat irregularly barred with black. the bars being wider and more defined on the outermost quills: tail-feathers black, the middle pair regularly barred with buff, the outer pairs indistinctly mottled with the same colour. Iris brown; bill dusky black, with the base of the lower mandible and gape greenish vellow: feet ochreous vellow: toes dusky.

Length about $14\frac{1}{4}$ inches, wing 7.0 inches, tail 2.0 inches, tarsus 2.0 inches.

Female.—Similar in plumage, but rather smaller. Wing 6.8 inches.

FRANCOLINUS JACKSONI

Francolinus jacksoni, OGILVIE-GRANT.

Ogilvie-Grant, 'Ibis,' 1892, page 51, Plate I, and 'Cat. Birds Brit. Mus.,' Vol. XXII, page 171. 'Sharpe's Hand-List,' Vol. I, page 25. 'Shelley's Birds of Africa,' Vol. I, page 182. 'Reichenow's Vögel Afrikas,' Vol. I, page 471.

This is the largest of the East African Francolins, and was first met with in August 1889, in the bamboo-zone on the northern outskirts of Kikuyu, at an altitude of 8000 feet. is very plentiful on the Aberdare Range, and is also found in the forests of the Sabugo o-lol-tian, Laikipia. On the western side of the Aberdare Range it is plentiful in the thick patches of nettles and scrub that mark the sites of old Masai manyattas, and extends as far north as II-polossat lake. So far as is at present known it is not found on the west side of the Rift Valley. It is usually found in small coveys of from three to five individuals, of which, I believe, one only is a cock bird. As a runner it is equalled only by the 'Spur-fowl.' When flushed it will often fly up into a tree or bamboo.

Male.—Forehead and cheeks dull red; chin, throat and sides of the neck white, with narrow rufous shaft-streaks; chest, breast flanks and upper back chestnut with white margins to the feathers; abdomen dusky grey; under Vor. I.-No. 1.

Top of the head tail-coverts chestnut margined with grev. and nape reddish brown with narrow vermiculated margins; shoulders finely vermiculated with black and grey; back, rump and wings brown; tail dark chestnut. Iris brown; eyelids coral-red; bill dark coral-red; front of legs coralred, hinder parts dusky.

Length 17½ inches, wing 9·1 inches, tail 5·2 inches, tarsus 2.8 inches.

Female.—Similar to the male, but smaller. Length 161 inches.

FRANCOLINUS HILDEBRANDTI

Francolinus hildebrandti, CABANIS.

Ogilvie-Grant, 'Ann. and Mag. N. H.,' series 6, Vol. IV, page 145, and 'Cat. Birds Brit. Mus.,' Vol. XXII, page 168. 'Sharpe's Hand-List,' Vol. I, page 25. 'Shelley's Birds of Africa,' Vol. I, page 182. 'Reichenow's Vögel Afrikas,' Vol. I, page 477.

The male and female of this bird were for many years considered as distinct species owing to their marked differences, the female being described as above, whilst the male was described by Fischer and Reichenow some six years later as F. altumi. My friend Mr. H. C. V. Hunter, however, settled the question when on a visit to Mochi on Kilimanjaro in 1888. The natives there caught considerable numbers of these birds in traps, and Hunter bought up as many as he required, and decided the matter by careful dissection.

This Francolin is not found nearer to the coast than Teita, where Dr. Hildebrandt obtained the type. Its real home, however, is the Rift Valley round Naivasha, particularly the western side, the Morendat and Gilgil rivers, Karianduss, the hills east of Lake Elmenteita, and the foot-hills of Mau to Elgeyo and Kamasia. It is essentially a Bush-Francolin, and delights in rough broken rocky hillsides covered with thick bush and scrub.

It is a very noisy bird, particularly when startled, and will often keep up its sharp, half-angry, half-frightened call when only a few yards away, but completely hidden in the dense covert. It will often fly up into a tree or bush when disturbed, and many undoubtedly roost in such positions. It is generally found in small lots of two or three, and rarely more than four or five. It prefers to seek safety by running and skulking, and when flushed does not often go much beyond gun-shot range before settling again. In the vicinity of Naivasha it breeds in July and August.

Male.—Top of the head black with grey margins; back of neck and shoulders black with white margins; back and rest of the upperparts closely freckled and vermiculated with black, grey and pale brown; throat pale buff; cheeks and sides of face pale buff with black centres; breast and flanks white with large black blotches; abdomen brownish buff. Iris brown; bill brown; gape and lower mandible orange; feet orange-red with dusky black toes.

Length $14\frac{1}{8}$ inches, wing 7.5 inches, tail 3.8 inches, tarsus 2.2 inches.

Female.—Upperparts similar to those of the male. Throat buff; neck and upper-breast black with grey margins, and reddish buff. Iris brown; bill brown; gape and lower mandible coral-red; feet red, and armed with one or two pairs of sharp spurs.

Length 14 inches, wing 6.9 inches, tail 3.7 inches, tarsus 1.9 inches.

FRANCOLINUS SCHUETTI

Francolinus schuetti, CABANIS.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 170. 'Sharpe's Hand-List,' Vol. I, page 25. 'Shelley's Birds of Africa,' Vol. I, page 182. 'Reichenow's Vögel Afrikas,' Vol. I, page 468.

Schuett's Francolin is a somewhat local bird, but has a wide range. It is plentiful throughout the Kikuyu forests, and on the western flanks of the Aberdare Range; also in the Mau forests, at Londiani and the Ravine. At one time it was plentiful in the forest bordering the lake at Entebbe, and was caught in considerable numbers by the Soudanese and Swahilis. It is also found in the Mabera forest. It is rarely found away from forest-belts, or thick bush bordering the same. During the construction of the railway between

Nairobi and Kijabe great numbers were caught by the Akikuyu, and sold to the Indian coolies.

In the early morning and again in the evening it leaves the thick covert to feed in the 'shambas,' or on land lying fallow, and like all Bush-Francolins it is a great runner and is difficult to flush.

It breeds in Kikuyu in July and August. It is commonly called the 'Red-leg.'

Male.—Top of head brown margined with grey; back of the neck and shoulders reddish brown marbled with black and edged with grey; rest of the upperparts brown finely vermiculated with black; chin and throat buffy white; chest and breast like the shoulders, but the brown is not so dark and merges gradually into the grey margins; breast buffy white with brown centres; abdomen dusky brown. Iris brown; bill bright coral-red; bare patch above ear dusky yellow; feet bright orange-red.

Length $15\frac{1}{8}$ inches, wing 6.9 inches, tail 3.4 inches, tarsus 2.6 inches.

Female.—Similar to the male, but smaller. Length $13\frac{3}{4}$ inches.

PTERNISTES HUMBOLDTI

Pternistes humboldti, Peters.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 176. 'Sharpe's Hand-List,' Vol. I, page 25. 'Shelley's Birds of Africa,' Vol. I, page 179. 'Reichenow's Vögel Afrikas,' Vol. I, page 462.

Humboldt's Bare-throated Francolin is apparently confined to the coast region. It is found in Witu, on the outskirts of the forest, and is plentiful in the bush-country on the banks of the lower Tana. Like all the bush-loving Francolins, it is a great runner and is difficult to flush.

Male.—Forehead black; indistinct stripe above the eye black and white; top of the head brown; rest of the upperparts umber-brown with black shaft-stripes. Feathered parts of the sides of the face and throat white, entirely surrounding the naked skin of the chin, throat and fore-neck. Sides of the neck black; chest and flanks whitish grey, narrowly

margined with black and with black shaft-stripes; breast and abdomen black. Iris brown; naked skin of the face and throat blood-red; bill and feet also blood-red.

Length about $14\frac{1}{2}$ inches, wing 7·4 inches, tail 3·5 inches, tarsus 2·4 inches.

Female.—Resembles the male, but differs in having the sides of the neck white, with a wide black band down the middle of the feathers; some of the feathers of the breast and abdomen have narrow white shaft-stripes.

Length about $13\frac{1}{2}$ inches, wing 7 inches, tail $2\cdot 9$ inches, tarsus $2\cdot 2$ inches.

PTERNISTES INFUSCATUS

Pternistes infuscatus, CABANIS.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 182, Plate VIII, fig. 2. 'Sharpe's Hand-List,' Vol. I, page 26. 'Shelley's Birds of Africa,' Vol. I, page 179.

Pternistes leucocepus infuscatus, Cabanis.

'Reichenow's Vögel Afrikas,' Vol. I, page 455.

This is the common so-called 'Spur-fowl.' It is widely distributed, and is plentiful from the coast to Kikuyu and Mount Kenya.

North of Kikuyu there appears to be a considerable break, as it does not reappear again in the Rift Valley until north of the Equator, on the lower reaches of the Molo River, and in the vicinity of Lake Hannington.

Its call is harsh and grating, and it is particularly noisy after a shower of rain. During the heat of the day it lies very close in the shade of some thick covert, and is difficult to dislodge; but in the early morning and evening, when found feeding in the open, its running powers are only equalled by those of the Guinea-Fowls, its action being very bold and erect. Near Nairobi it breeds in July and August, and again in October and November.

Male and Female.—Top of head dark brown with dark grey margins; streak above eye and cheeks pale buff; the feathers under the eye with pale brown centres; neck brown, with white edges; shoulders brown with chestnut centres; rest of the upperparts dark brown with white and buff shaft-

stripes; tail vermiculated with brown and buff; chest, breast and underparts dark brown with pale buff middles, the feathers of the flanks shaded with chestnut. Iris hazel; bill blackish brown; gape and base of the lower mandible, bare skin of the face and upper-throat crimson-red; rest of the throat lemon-yellow; feet blackish brown.

Length 17 inches, wing 8.5 inches, tail 3.6 inches, tarsus 2.5 inches.

Female.—Similar to the male, but smaller. Length 15 inches.

PTERNISTES CRANCHI

Pternistes cranchi, LEACH.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 178. 'Sharpe's Hand-List,' Vol. I, page 26. 'Shelley's Birds of Africa,' Vol. I, page 179. 'Reichenow's Vögel Afrikas,' Vol. I, page 457.

The distribution of this fine Bare-throated Francolin is rather curious.

In East Africa it appears to be confined to the Nyando Valley, where it is fairly plentiful at Fort Ternan and Muhoroni, and again near Kisumu. It reappears in Western Uganda, near Lewekula's, and in Toro where it is the common Francolin of the country. It is found in rough broken ground along water-courses bordered with bush and scrub. Its call, which is harsh and grating, is exactly like that of *P. infuscatus*.

Male.—Stripe above the eye and sides of face black, narrowly margined with white; top of the head brown; feathers of the neck, mantle, chest and sides finely mottled with black and white; rest of the upperparts umber-brown finely mottled and dotted with black; breast and abdomen like the chest, but each feather widely margined with chestnut; vent and under tail-coverts brownish buff, mottled with black; tail brown faintly dotted with black. Iris brown; bill and feet crimson-red; naked skin of the face and throat also crimson-red.

Length about $14\frac{1}{2}$ inches, wing 7.3 inches, tail 3.1 inches, tarsus 2.2 inches.

Female.—Differs from the male in having the feathers of

the back of the neck brown edged with white and with dark shaft-stripes; the feathers of the breast and abdomen much less conspicuously edged with chestnut.

Length about $13\frac{1}{2}$ inches, wing 6.8 inches, tail 3 inches, tarsus 1.9 inches.

PTERNISTES BOEHMI

Pternistes boehmi, REICHENOW.

'Ogilvie-Grant's Cat. Birds Brit. Mus.,' Vol. XXII, page 179. 'Sharpe's Hand-List,' Vol. I, page 26. 'Shelley's Birds of Africa,' Vol. I, page 129. 'Reichenow's Vögel Afrikas,' Vol. I, page 458.

On the authority of Professor Reichenow this bird was found on the Tana River by the late Dr. Fischer, and at Lake Elmenteita by Mr. Oscar Neumann.

Male and Female.—Similar to P. cranchi, but with the upper breast-feathers white, vermiculated with black, and with black shaft-stripes; those of the abdomen white with black shaft-stripes and wide reddish brown margins with small submarginal black bands. Iris brown; naked skin of the face red, of the chin and throat yellow.

NATURE STUDY

By C. W. Hobley.

There may be many members who are anxious to do some work in this field, and who are at the same time rather doubtful as to what they can do and where to begin; one may compare such to a child placed in a room full of toys and standing wondering and confused, doubtful as to which it should select to amuse itself with.

Most men, if they live long in a country like this, cannot help falling to some extent a victim to the spells of nature; the wealth of the mammalian fauna and its attendant sport awakens a thrill in nearly all: some find the birds a fascinating attraction, others succumb to the charms of the varied insect life, a few are attracted by the flora, and savage man again absorbs the attention of others. The scenery of the more rugged parts of the country appeals to the artistic eye, but it is feared that