

THE SIMLA HORNED PHEASANT

Descr.—Male, head black, the crest tipped with red; nape, back, and sides of neck, dark-red; back and upper parts dark brown, minutely barred irregularly with black, each feather with a round white spot on a deep black ground; shoulder of wing dark red; quills blackish, with brown mottlings and bars, and some dusky olive spots on some of the wing-coverts; tertaries mottled like the back, and with the scapulars, having a large white spot; upper tail-coverts lengthened, the lateral feathers with a large fulvous tip edged dull black, and white spotted, tail black, unspotted towards the tip, but barred with whitish brown for the greater part of its length; beneath, the throat and neck below the wattle are vivid scarlet, passing into flame colour and yellow on the lower part of the neck, these feathers being of a hard, firm, and somewhat horny texture, the breast and lower parts black, dashed with dull red, and each feather with a round white spot; the thigh-coverts mottled black and brown, paler and yellowish near the joint.

Bill blackish; irides hazel brown; naked orbits bright red, two fleshy horns pale blue; the gular wattle purple in the middle, spotted and edged with pale blue, and fleshy on the sides; legs and feet fleshy. Length 27 to 29 inches; extent 37; wing $11\frac{1}{4}$; tail $10\frac{1}{2}$ to 11; tarsus 3; weight $4\frac{1}{2}$ lbs.

The female has the head and all the upper parts mottled with dark and light brown and blackish, with small pointed streaks of pale yellow; quills and tail dark brown, minutely mottled and barred; the lower parts light ashy brown, very minutely powdered with blackish, and marked with irregular spots of white, very strongly so on the breast, less so on the abdomen, and becoming more ashy. The horns and fleshy wattles also are absent. Length about 24 inches; extent 32; wing 10; tail 9; legs and feet greyish ashy.

The young male is at first colored like the female; in the second year the head and neck become red, and the white spots appear; and in the third year, he gets the full plumage. In Hardwicke's Illustrations there is the figure of a young male in the second year called *Phas. melanocephalus*, female; and in Gould's Century,

pl 64 what is there called the young male appears rather to be a cock bird in winter plumage, with the wattles not developed, and the horns shrivelled up; for Mountaineer tells us that 'the flap of skin and the horns are either cast or shrink up every year in moulting, and do not attain any size again till the ensuing spring' In this figure, too, the red tip of the crest is very apparent, whilst in the figure of the so called adult male it is totally absent.

This very handsome Horned-pheasant is found from the Western borders of Nepal to the extreme North-West Himalayas. It is stated not to be a very common bird about Simla and Mussoorie, but more abundant near Almora "Its usual haunts" says Mountaineer, "are high up, not far from the snows, in dense and gloomy forests, either alone, or in small scattered parties In winter they descend the hills, and then their favorite haunts are in the thickest parts of the forests of Oak, Chesnut, and Morinda Pine, where the box-tree is abundant, and where under the forest trees a luxuriant growth of 'Ringall' or the hill Bamboo forms an underwood in some places almost impenetrable. They keep in companies of from two or three to ten or a dozen or more, not in compact flocks, but scattered widely over a considerable space of forest, so that many at times get quite separated, and are found alone" If undisturbed, however, they generally remain pretty close together, and appear to return year after year to the same spot, even though the ground be covered with snow, for they find their living then on the trees If driven away from the forest by an unusually severe storm, or any other cause, they may be found at this season in small clumps of wood, wooded ravines, patches of low brush-wood, &c.

"At this season, except its note of alarm, when disturbed, the Jewar is altogether mute, and is never heard of its own accord to utter a note or call of any kind; unlike the rest of our Pheasants, all of which occasionally crow or call at all seasons When alarmed it utters a succession of wailing cries, not unlike those of a young lamb or kid, like the syllable "*waa, waa, waa,*" each syllable uttered slowly and distinctly at first, and more rapidly as the bird is hard pressed or about to take wing. Where not

repeatedly disturbed, it is not particularly shy, and seldom takes alarm till a person is in its immediate vicinity, when it creeps slowly through the underwood, or flies up into a tree; in the former case continuing its call till again stationary, and in the latter, till it has concealed itself in the branches. If several are together, all begin to call at once, and run off in different directions, some mounting into the trees, others running along the ground. When first put up, they often alight in one of the nearest trees, but if again flushed, the second flight is generally to some distance, and almost always down hill. Their flight is rapid, the whir peculiar, and even when the bird is not seen, may be distinguished by the sound from that of any other. Where their haunts are often visited either by the sportsmen or the villagers, they are more wary, and if such visits are of regular occurrence and continued for any length of time, they become so in a very high degree—so much so, that it is impossible to conceive a forest bird more shy or cunning. They then as soon as aware of the presence of any one in the forest, after calling once or twice, or without doing so at all, fly up into the trees, which near their haunts are almost all evergreens of the densest foliage, and conceal themselves so artfully in the tangled leaves and branches that unless one has been seen to fly into a particular tree, and it has been well marked down, it is almost impossible to find them.

“In spring, as the snow begins to melt on the higher parts of the hill, they leave entirely their winter resorts, and gradually separate, and spread themselves through the more remote and distant woods up to the region of birch and white rhododendron, and almost to the extreme limits of forest. Early in April, they begin to pair, and the males are then more generally met with than at any other period; they seem to wander about a great deal, are almost always found alone, and often call at intervals all day long. When thus calling, the bird is generally perched on the thick branch of a tree, or the trunk of one which has fallen to the ground, or on a large stone. The call is similar to the one they utter when disturbed, but is much louder, and only one single note at a time, a loud energetic “*waa*,” not unlike the bleating of a lost goat, and can be heard for upwards of a mile. It is uttered at

various intervals, sometimes every five or ten minutes for hours together, and sometimes not more than two or three times during the day, and most probably to invite the females to the spot. When the business of incubation is over, each brood with the parent birds keep collected together about one spot, and descend towards their winter resorts as the season advances; but the forests are so densely crowded with long weeds and grass, they are seldom seen till about November, when it has partially decayed, and admits of a view through the wood.

"It feeds chiefly on the leaves of trees and shrubs; of the former the box and oak are the principal ones, of the latter, *ringall* and a shrub something like privet. It also eats roots, flowers, grubs, and insects, acorns and seeds, and berries of various kinds, but in a small proportion compared with leaves. In confinement it will eat almost any kind of grain. Though the most solitary of our Pheasants, and in its native forests perhaps the shyest, it is the most easily reconciled to confinement; even when caught old they soon lose their timidity, eating readily out of the hand, and little difficulty is experienced in rearing them.

The Jewar roosts in trees, and in winter, perhaps for warmth, seems to prefer the low evergreens with closely interwoven leaves and branches to the latter and larger which overshadow them."

Other species of *Cerionis* are *C. Temminchii*, Gray, from China, figured Hardwicke's Ill. Ind. Zool.; and *C. Caboti*, Gould, also from some part of China, figured by Gould, Birds of Asia, pt. X, pl., 1.

Near these Pheasants I would place that somewhat anomalous form, the Blood-pheasant, founded on a single known species. It has more the habit, perhaps, of a Jungle-fowl than of a Pheasant, but from its geographical relations with the Pheasants, only being found at high elevations on the Himalayas, I prefer considering it a peculiar form of Hill-pheasant, and it certainly has some affinities for the Pucras-pheasants. From its small size and numerous spurs, it may be considered as holding the same relationship to the Pheasants, as *Polypectron* does to Pea-fowl, or as Spur-fowl do to Jungle-fowl. It may be considered a sort of

link between the Pheasants and Partridges, but I cannot agree with Gray in placing it among the Partridges.

Gen *ITHAGINIS*, Wagler.

Char.—Bill short, stout; tail rather short, of fourteen feathers; tarsus of the male with several spurs; feathers of the neck somewhat elongated; head sub-crested. Of rather small size.

The pale grass-green color of the lower plumage of this remarkable bird, and the blood red stains are quite unique.

807. *Ithaginis cruentus*, HARDWICKE.

Phasianus, apud HARDWICKE, Lin. Trans. XIII. 237—BLYTH, Cat 1455—P. Gardneri, Hardwicke (the female)—GOULD, Birds of Asia, pt. III, pl. 3—*Soomong-plu*, Lepch. Semo, Bhot.

THE GREEN BLOOD-PHEASANT

Descr.—Male, with the forehead, lores, and cheeks, black; crown of the head buff; crest dull grey, with a streak of buff down the centre of each feather; back of the neck and upper surface generally dark grey, with a narrow stripe of buffy white bounded on either side with a stripe of black, down the centre of each feather, the stripes becoming larger and more conspicuous as they proceed backwards, and with a tinge of green on those occupying the lower part of the back and the centre of the greater wing-coverts; tail grey, fading into greyish white at the tip, the shafts white, and the basal three-fourths of the feathers broadly margined with blood red; beneath, the throat is blood red; the ear-coverts black, striated with buffy white, the lower part of the throat brownish black, with a stripe of greenish buff down each feather; sides of the neck buff; breast, sides of the abdomen, and flanks very pale green, with light shafts, and the feathers of the breast with a blotch of deep blood-red near the centre of either margin, giving the part the appearance of being stained with blood; middle of the abdomen, thighs and vent, dark brownish grey, striped with greenish white bounded by black; under tail-coverts deep blood-red, with a narrow line of pale yellow ending in a spatulate form at the tip, down the centre of each feather.

Bill brownish black at the tip, red at the base; orbits bright red; irides brown; legs and feet coral red. Length 16 to 17 inches; wing $8\frac{1}{2}$; tail $6\frac{1}{2}$; tarsus $2\frac{3}{4}$, with three, four or five short spurs.

The female has the forehead, cheeks and chin, bright rusty yellow; the upper parts ferruginous brown, mottled very finely with blackish; the first primaries plain dark brown; the others and the tail dark brown, fleckled like the back; lower parts somewhat brighter ferruginous brown than above; the under tail-coverts and vent mottled with brown.

This beautiful bird has only hitherto been found in the South-east Himalayas, in Nepal and Sikim, and apparently not common in the former country. It appears more abundant in Sikim, in the interior, for it is not found in British Sikim, and probably extends into the Bootan Himalayas. The following remarks are by Dr. Hooker, who had the opportunity of observing it in Sikim.

"This, the boldest of the Alpine birds of its kind, frequents the mountain ranges of Eastern Nepal and Sikim, at an elevation varying from 10,000 to 14,000 feet, and is very abundant in many of the valleys among the forests of Pine, (*Abies Webbiana*) and Juniper. It seldom or ever crows, but emits a weak cackling noise. When put up, it takes a very short flight and then runs to shelter. During winter it appears to burrow under or in holes amongst the snow, for I have snared it in January in regions thickly covered with snow at an altitude of 12,000 feet. I have seen the young in May. The principal food of the bird consisting of the tops of the Pine and Juniper in spring, and the berries of the latter in autumn and winter, its flesh has always a very strong flavour, and is moreover uncommonly tough; it was, however, the only bird I obtained at those great elevations in tolerable abundance for food, and that not very frequently. The Bhotcas say that it acquires an additional spur every year; certain it is that they are more numerous than in any other bird, and that they are not alike on both legs. I could not discover the cause of this difference, neither could I learn if they were produced at different times. I believe that five on one leg, and four on the other, is the greatest number I have observed."

Near the Horned-pheasants and perhaps linking them to the true Pheasants, I would place the Pucras or Koklas Pheasants, and Bonaparte includes them both in his section *Satyrea* of his *Lophophorinae*.

Gen. PUCRASIA, Gray.

Syn. *Eulophus*, Lesson—*Lophotetrax*, Cabanis.

Char.—Bill short; head adorned with a double crest, a sincipital tuft on each side, and a central drooping crest; tarsi with a moderately large spur; toes and claws lengthened and slender; tail moderately lengthened, graduated, of sixteen feathers. Plumage throughout somewhat lanceolate and cock-like.

This form may be said to be a sort of link between the Horned-pheasants and the true Pheasants. It has the crest of *Phasianus*, the hackled plumage of the Jungle-fowl, and in some points appears related to the last genus *Ithaginis*. The best known species has been described under *Tragopan* by Temminck; and one writer states his belief that it leads the way from Pheasants to the *Lophophori*. It is confined to the Himalayas and adjacent highlands. Gould in his *Birds of Asia* describes and figures three species.

808. *Pucrasia macrolopha*, LESSON.

Satyra, apud LESSON—BLYTH, Cat. 1472—GOULD, Cont. Him. Birds, pl. 69,70—GOULD, *Birds of Asia*, pt. VI. pl. 4—*P. nipalensis*, GOULD, l. c. pl. 6?—HARDWICKE Ill. Ind. Zool. pl. 40—*P. pucrasia*, VIGORS—*Tragopan Duvauceli*, TEMMINCK—*Plas*—*Pukras*—*Koklas* or *Kokla*, in various hill dialects.

THE PUKRAS PHEASANT.

Descr.—Male, with the head glossy dark green, the crown being ashy brown; medial crest, with the upper feathers, ashy brown; the lateral feathers dark green fully 4 inches; on each side of the neck a large white oblong spot; body above light ashy, each feather with a long pointed streak of black, and the wing-coverts with some blackish blotches; upper tail-coverts long, light ashy; tail brownish chesnut, black at the tip, and faintly edged with whitish; beneath, the breast and middle of the belly rich deep chesnut, ashy on the flanks; vent chesnut, the feathers white tipped.

Bill black; irides dark brown; legs and feet ashy. Length 24 inches; extent 30; wing 10; tail 12; tarsus $2\frac{1}{2}$.

The female has the upper plumage pale yellow-brown, variously variegated and banded with dark brown, chesnut, and pale yellowish; chin and throat yellowish-white; lower plumage yellow-chesnut, with dark brown markings, paler down the middle of the abdomen, and darker on the flanks.

Length 20 inches; extent 28.

This very handsome Pheasant has only been found in the N. W. Himalayas, from the west of Nepal to beyond Simla. It does not occur in Sikim, nor in Eastern Nepal. Gould has figured another supposed new species as *P. nipalensis*, stating that it is smaller and more beautifully colored, the mantle, sides of the neck, and feathers of the flank being conspicuously striated with black, chesnut and grey, whilst the same parts are sombre in the other species. The figures of the two resemble each other so very closely that I cannot help doubting their being really distinct. It would appear that *nipalensis* extends into the Bootan Himalayas, but it has certainly not hitherto been sent from the intervening Sikim hills.

For an account of the habits of the Pukras, I again quote from Mountaineer.

"This is another forest Pheasant common to the whole of the wooded regions, from an elevation of about 4,000 feet, to nearly the extreme limits of forest, but is most abundant in the lower and intermediate ranges. In the lower regions its favorite haunts are in wooded ravines, but it is found on nearly all hill sides which are covered with trees or bushes, from the summit of the ridges to about half way down. Further, in the interior, it is found scattered in all parts, from near the foot of the hills, to the top or as far as the forest reaches, seeming most partial to the deep sloping forest composed of Oak, Chesnut, and Morenda Pine, with Box, Yew, and other trees intermingled, and a thick underwood of Ringall.

"The Cocklass is of a rather retired and solitary disposition. It is generally found singly or in pairs; and except the brood of young birds which keep pretty well collected till near the end of winter, they seldom congregate much together. Where numerous,

several are often put up at no great distance from each other, as if they were members of one lot; but when more thinly scattered, it is seldom more than two old birds are found together; and at whatever season, when one is found, its mate may almost to a certainty be found somewhere near. This would lead one to imagine that many pairs do not separate after the business of incubation is over, but keep paired for several successive years. In forests where there is little grass or underwood, they get up as soon as aware of the approach of any one near, or run quickly along the ground to some distance; but where there is much cover, they lie very close, and will not get up till forced by dogs or beaters. When put up by dogs, they often fly up into a tree close by, which they rarely do when flushed by beaters or the sportsman himself, then flying a long way and generally alighting on the ground. Their flight is rapid in the extreme, and after a few whis, they sometimes shoot down like lightning. They sometimes utter a few low chuckles before getting up, and rise sometimes with a low screeching chatter and sometimes silently. The males often crow at daybreak, and occasionally at all hours. In the remote forest of the interior, on the report of a gun, all which are within half a mile or so, will often crow after each report. They also often crow after a clap of thunder or any loud and sudden noise; this peculiarity seems to be confined to those in dark shady woods in the interior, as I never noticed it on the lower hills.

"The Cocklass feeds principally on leaves and buds; it also eats roots, grubs, acorns, seeds and berries, and moss and flowers. It will not readily eat grain; and is more difficult to rear in confinement than the Jewar or Moonall. It roosts in trees generally, but at times on low bushes or on the ground. The female lays seven eggs nearly resembling those of the Moonall in colour; they are hatched about the middle or end of May. She makes her nest under the shelter of an overhanging tuft of grass, or in a corner at the foot of a tree, and sometimes in the hollow of a decayed trunk."

PUCRASIA CASTANEA, Gould, *figured Birds of Asia*, pt. VI., pl. 5, from the highlands adjoining the N. W. termination of the

Himalayas, may perhaps occur within our limits in Cashmere, and the Punjab Himalayas, but has not, that I am aware of, been actually recorded from any spot in our province.

The true Pheasants follow the Pukras group very closely.

Gen. PHASIANUS, Linnæus (as restricted.)

Char.—Tail elongated, cuneate, of eighteen feathers; checks naked, red; tarsi spurred in the males.

The true long-tailed Pheasants are found over all Central Asia, one species only occurring as far south as the Himalayan mountains, and none found in Burmah, nor in Malaya.

The type of the genus is the well known *Phasianus colchicus*, L., an inhabitant of Western Asia, now naturalized throughout great part of Europe.

The only Indian species differs somewhat in type of coloration from the more typical members, and has been separated as *Catreus* by Cabanis, but I shall not adopt the division.

809. *Phasianus Wallichii*, HARDWICKE.

Lophophorus, apud HARDWICKE—BLYTH, Cat. 1473—GOULD, Cent. II. Birds, pl. 68—P. Stacci, VIGORS—*Chur*, *Cheor*, *Banchul*, and *Herril*, in various parts of the Himalayas—*Kahir* in Nepal.

THE CHEER PHEASANT

Descr.—Male, head dark ashy, crested, with a few long hair-like feathers; neck light ashy, gradually becoming slightly barred with dusky black; shoulders and wing-coverts yellowish ash, with curving bars of black; and, in some birds, small shining golden spots are mingled with the black curves on the shoulder; primaries dusky, partially barred with pale yellow; back and rump light reddish chesnut, barred with bluish-black; tail much graduated, the two long middle tail-feathers broadly barred with pale speckled yellow and brownish olive, blotched and speckled with black; the others barred with pale yellow black and dark chesnut; the throat and breast yellowish-ashy, with a few curving bars of black; belly dusky; thigh-coverts and vent yellowish chesnut, marked with dusky.

Bill pale horny; nude orbits bright red; irides yellowish hazel; legs and feet brown. Length up to 46 inches, of which the tail is 28, but rarely so long; wing 10; extent 32. Weight $3\frac{1}{2}$ lbs.

The female has the head, neck, and throat with large dusky oval spots; the back is more minutely mottled, and the barring on the wings more prominent; the tail, which is much shorter, has the brown mottlings bolder and more distinct; the chin is plain; and the belly and vent are plain yellowish ashy. Length 32 inches; tail 16.

Young males are said to assume their own plumage at once.

This fine, though plain colored Pheasant is only found in the N. W. Himalayas, extending into Nepal, where however not so common as further West. "It is," says Mountaineer, "an inhabitant of the lower and intermediate ranges, seldom found at very high elevations, and never approaching the limits of forest. Though far from being rare, fewer perhaps are met with than of any other kind, unless it is particularly sought for, always excepting the Jewar. The reason of this may be that the general character of the ground where they resort is not so inviting in appearance to the sportsman as other places; besides, they are everywhere confined to particular localities, and are not like the rest scattered indiscriminately over almost every part of the regions they inhabit. Their haunts are on grassy hills, with a scattered forest of oak and small patches of underwood, hills covered with the common pine, near the sites of deserted villages, old Cow sheds, and the long grass amongst precipices, and broken ground. They are seldom found on hills entirely destitute of trees or jungle, or in the opposite extreme of deep shady forest; in the lower ranges they keep near the tops of the hills or about the middle, and are seldom found in the vallies or deep ravines. Further in the interior, they are generally low down, often in the immediate vicinity of the villages; except in the breeding season, when each pair seek a spot to perform the business of incubation, they congregate in flocks of from five or six to ten or fifteen, and seldom more than two or three lots inhabit the same hill. They wander about a good deal on the particular hill they are located, but not beyond certain boundaries, remaining about one spot for several days or weeks, and then shifting to

another, but never entirely abandon the place, and year after year may to a certainty be found in some quarter of it. During the day, unless dark and cloudy, they keep concealed in the grass and bushes, coming out morning and evening to feed; when come upon suddenly while out, they run off quickly in different directions, and conceal themselves in the nearest cover, and seldom more than one or two get on the wing. They run very fast, and if the ground is open and no cover near, many will run two or three hundred yards in preference to getting up. After concealing themselves, they lie very close and are flushed within a few yards. There is perhaps no bird of its size which is so difficult to find, after the flock have been disturbed, and they have concealed themselves; when the grass is very long, even if marked down, without a good dog it is often impossible, and with the assistance of the best dogs not one-half will be found a second time. A person may walk within a yard of one and it will not move. I have knocked them over with a stick, and even taken them with the hand. In autumn the long rank grass so prevalent about many of the places they resort to, enables them to hide almost anywhere; but this is burnt by the villagers at the end of winter, and they then seek refuge in low jungle and brushwood, and with a dog are not so difficult to find.

"Both males and females often crow at daybreak and dusk, and in cloudy weather sometimes during the day. The crow is loud and singular, and when there is nothing to interrupt the sound, may be heard for at least a mile. It is something like the words, *chir a pir, chir a pir, chir chir, chirwa, chirwa*, but a good deal varied; it is often begun before complete daylight, and in spring when the birds are numerous, it invariably ushers in the day. In this respect it may rival the domestic Cock. When pairing and scattered about, the crow is often kept up for near half an hour, first from one quarter, then another, and now and then all seem to join in as a chorus. At other times it seldom lasts more than five or ten minutes.

"The Cheer-pheasant feeds chiefly on roots, for which it digs holes in the ground; grubs, insects, seeds and berries, and, if near cultivated fields, several kinds of grain form a portion; it does

not eat grass or leaves like all the rest of our Pheasants. It is easy to rear in confinement, and might, without difficulty, be naturalized in England, if it would stand the long frosts and snows of severe winters, which I imagine is rather doubtful. The female makes her nest in the grass or amongst low bushes, and lays from nine to fourteen eggs, of a dull white, and rather small for so large a bird. They are hatched about the end of May or beginning of June. Both male and female keep with the young brood, and seem very solicitous for their safety.

"This bird flies rather heavily and seldom very far. Like most others, it generally utters a few loud screeches on getting up, and spreads out the beautifully barred feathers of its long tail, both when flying and running. It does not perch much on trees, but will occasionally fly up into one close by, when put up by dogs. It roosts on the ground generally, and when congregated together, the whole flock huddle up in one spot. They will however at times roost in trees or bushes."

Other true Pheasants besides *P. colchicus* are *P. torquatus*, or the ring-necked Pheasant of China, which differs from the common one by having a white ring round the neck, and the back being green. It is figured by Gould, Birds of Asia, pt. VIII. pl. 1; and another species, *P. mongolicus*, has been lately described by Gould. *P. versicolor*, Vieillot, (*Diardi*, Temm.) figured by Gould, Birds of Asia, pt. IX. pl. 1, from Japan, has frequently interbred with the common and ringed Pheasants in England. The gorgeous *P. Reevesii*, Gray (*veneratus*, Temm.) from China, and badly figured in Hardwicke's Ill. Ind. Zool., is placed under *Syrnaticus*, of Wagler. *P. Soemmeringii*, Temm., from Japan, a fine species with coppery red plumage, is placed by Reichenbach as *Graphophasianus*.

The Golden Pheasants form a pretty distinct group, *Thaumalea*, Wagler, (*Chrysolophus*, Gray). They have the head crested, and a sort of ruff or tippet round the back of the neck, and a very long tail. There are two species, one the well-known Golden Pheasant, *Thaumalea picta*, from China, said to extend west in Central Asia, as far as Orenbourg; and deemed by Cuvier to be

the type of the *Phoenix* of the ancients. The other species is a most lovely bird, *Thaumalea Amherstiae*, Leadbeater, probably an inhabitant of the northern provinces of China, or Mantchouria. It is beautifully figured in Gray's Genera of Birds.

The Silver Pheasant, *Gennæus nycthemerus*, figured by Gould, Birds of Asia, pt. XI., pl. 1, is the type of another form; and this is intimately connected with a group which leads from the Pheasants to the Firebacks and Jungle-fowl, and may be placed with either. It is that of the Kalij Pheasants of the Himalayas, and, as it partakes both of the character of the Pheasants and Jungle-fowl, so, in its geographical distribution, it ranges from the head quarters of the Pheasants to the Burmese province, where Jungle-fowl take the place of the true Pheasants.

The Silver Pheasant of Burmah, *Phasianus lineatus*, Latham, figured in Belanger's Voyage, Birds, pl. 8, might be classed either with the true Silver Pheasant, or the Kalij group, but from geographic reasons I prefer placing it with the latter. It has been separated as *Grammatoptilus*, Reichenbach. It occurs throughout the hilly regions of Burmah.

Gen. GALLOPHASIS, Hodgson.

Syn. *Euplocomus*, Temminck (in part).

Char.—Head more or less crested; orbits naked, red; plumage glossy black and white; the feathers of the neck and breast hackled; tail moderately long, of sixteen feathers, divaricated, raised in the centre, as in Jungle-fowl, and held demi-erect, the feathers drooping and curving outwards.

This group is composed of at least three species, two being found in the Himalayas, and one in Assam, Chittagong and Arrakan. They are birds about the size of a small fowl, and live at various elevations, from 3,000 feet to 7,000 feet and upwards. Gray places them among the Jungle-fowl, but from their Himalayan distribution, and their not extending far South, I prefer placing them with the Pheasants, but leading directly to the Firebacks and Jungle-fowl.

810. *Gallophasis albocristatus*, VIGORS.

Phasianus, apud VIGORS—GOULD, Cent. Him Birds, pl. 66, 67
 —P. Hamiltonii, GRAY—HARDWICKE, Ill. Ind. Zool. 1 pl.
 41—BLYTH, Cat. 1470—*Kalij*—*Murgh-kalij*, and *Kukera*, H. at
 Simla and the N. W. Himalayas.

THE WHITE-CRESTED KALIJ-PHEASANT.

Descr.—Male, head, neck, wings and tail shining bluish black; a long crest of slender decomposed feathers, white; lower back and rump dull white, slightly barred with black, the feathers being black at the base, broadly tipped with white; throat and breast greyish white, the feathers lanceolate; belly and vent dark grey.

Bill dark horny; naked orbits bright red; irides brown; legs and feet dark horny. Length 26 inches; extent 32; wing 10; tail 12 to 15. Weight about 3 lbs.

The female is less than the male, of a light brown colour throughout, each feather being tipped with pale whitish brown; the chin whitish; lateral tail-feathers dark. The young male is said to get his proper plumage the first year.

The white-crested Kalij is found in the North-west Himalayas, as far as Nepal, where it meets with the next species, and hybrids between the two are not uncommon; and these have caused some confusion of species, *P. leucomelanos*, of Latham being considered as one of these hybrids, and *P. hamiltonii* another.

“The well known Kalleege” says Mountaineer “is most abundant in the lower regions; it is common in the Dhoon at the foot of the hills, in all the lower vallies, and every where to an elevation of about 8,000 feet; from this it becomes more rare, though a few are found still higher. It appears to be more unsuspicious of man than the rest of our Pheasants; it comes much nearer his habitations, and from being so often found near the villages and road-sides, is considered by all as the most common, though in their respective regions the Moonall is more numerous. In the lower regions, it is found in every description of forest from the foot to the summit of the hills, but it is most partial to low coppice and jungle, and wooded ravines or hollows. In the interior it frequents

the scattered jungle at the borders of the dense forest, thickets near old deserted patches of cultivation, old cowsheds and the like, coppices near the villages and roads, and in fact forest and jungle of every kind, except the distant and remoter woods in which it is seldom found. The presence of man, or some trace that he has once been a dweller in the spot, seems as it were, necessary to its existence.

"The Kalleege is not very gregarious; three or four are often found together, and ten or dozen may sometimes be put out of one small coppice, but they seem in a great measure independent of each other, and much like our English Pheasants. When disturbed, if feeding or on the move, they generally run, and do not often get up unless surprised suddenly and closely, or forced by dogs, and lie rather close in thick cover. They are never very shy, and where not unceasingly annoyed by sportsmen or shikarees, are as tame as any sportsman could wish. In walking up a ravine or hill side, if put up by dogs, a little distance above, they will often fly into the trees close above his head, and two or three allow themselves to be quietly knocked over in succession. When flushed from any place where they have sheltered, whether on the ground or aloft, they fly off to some distant cover, and alight on the ground in preference to the trees. Their call is a loud whistling chuckle or chirrup; it may occasionally be heard from the midst of some thicket or coppice at any hour of the day, but is not of very frequent occurrence. It is generally uttered when the bird rises, and if it flies into a tree near, often continued some time. When flushed by a cat or a small animal, this chuckling is always loud and earnest.

"The Kalleege is very pugnacious, and the males have frequent battles. On one occasion I had shot a male which lay fluttering on the ground in its death struggles, when another rushed out of the jungle and attacked it with the greatest fury, though I was standing reloading the gun close by. The male often makes a singular drumming noise with its wings, not unlike the sound produced by shaking in the air a stiff piece of cloth. It is heard only in the pairing season, but whether to attract the attention of the females or in defiance of his fellows, I cannot say, as I have

never seen the bird in the act, though often led to the spot where they were by the sound.

It feeds on roots, grubs, insects, seeds, and berries, and the leaves and shoots of shrubs. It is rather difficult to rear in confinement when caught old; and the few chicks I have tried, have also soon died, though possibly from want of proper care and attention. It is singular that of the Hill-pheasants the one most common near the habitations of man, should so ill brook the loss of liberty, while the Jewar, the most retired and solitary of all, is the most easily reconciled to it. The Kalleege lays from nine to fourteen eggs, much similar in size and colour to those of the domestic hen. They are hatched about the end of May."

811. *Gallophasis melanotus*, BLYTH.

Euplocamus, apud BLYTH, Cat. 1469—*Karrick-pho*, Lepch.—*Kirrik*, Bhot.—*Kalij* of Europeans at Darjeeling.

THE SIKIM KALIJ PHEASANT.

Descr.—Male, the whole upper plumage, including the crest, glossy black; beneath white; the feathers of the throat and breast long and lanceolate; abdomen, vent, and under tail-coverts dull brownish black.

Bill pale horny yellow; orbital skin fine red; irides brown; legs horny; weight about 3 lbs. Length 27 inches; wing $9\frac{1}{4}$; tail 13; tarsus 3.

The female has the plumage brown, pale and whitish about the head and throat, the feathers of the back tipped with greyish, and those of the wing-coverts and beneath, broadly edged with white, all the feathers faintly white-shafted.

The Sikim black Pheasant differs conspicuously from that of Simla by the crest being black, and in having no white on the rump. In this last point, it differs also from another species, *Gallophasis Horsfieldii*. It extends into Nepal for some distance till it meets the previous species. About Darjeeling it is the only Pheasant at all common, and is not unfrequently put up on the

road side by dogs, when it at once takes refuge in trees. It is found from 3,000 to nearly 8,000 feet; walks and runs with its tail semi-erect, and frequents both forests and bushy and grassy ground, coming to the fields and more open spaces to feed in the morning and evening. Its eggs are occasionally found by the coolies when weeding the Tea-gardens in June and July, and are usually, I am told, five to eight in number. Its call sounds something like *koorch-koorch*, at other times *koorook-koorook*.

Gallophasis Horsfieldii, figured by Gray in his Genera of Birds, and also by Wolf, is found in all the hilly regions of Assam, Sylhet, Tipperah, and Chittagong, where called *Muthura*. It differs from the Darjeeling Kalij by having the back and rump white, &c. I found it in the Khasia Hills, at between 3,000 and 4,000 feet of elevation. It grades into the Burmese *G. lineatus*, specimens from Arrakan, being apparently hybrids between the two species.

Sub-fam. GALLINÆ.

Head sometimes furnished with fleshy crest and wattles, or crested, or sub-crested; tail usually of fourteen feathers, compressed, and more or less divaricate, held demi-erect; the upper tail-coverts in the males are (typically) elongated and pendent.

This division comprises, according to our views, the Jungle-fowls of India and Malayana; the Fire-backs, and the black Pheasants, peculiar to the Malayan region; and a small group from India and Ceylon, the so called Spur-fowl of Indian sportsmen. Although one species extends to the lower ranges of the Himalayas, it cannot be called a Himalayan form, and thus this series of game birds differ remarkably in their geographic distributions from the last, only one form of which (and that one osculant with the present division) extends south of the Himalayan region. A very beautiful bird, *Diardigallus prelati*, Bonaparte, from Siam, may be considered the link from the Kalij Pheasants to the Jungle-fowl, or rather to the Fire-backs. It has a peacock-like crest, a rather long glossy black tail, the upper plumage and breast silvery grey, and the rump pale golden yellow. It is figured by Gould in his birds of Asia, pt. XII., pl. 4. Next this should come the

Fire-backed Pheasants, *Macartneya*, with two species, *Phasianus ignitus*, and *P. Vieilloti*; large birds with black plumage, the back fiery red, and the middle tail feathers white. The head is slightly crested, and the orbits are blue. Next *Alectrophasis*, Gray, founded on the *Lophophorus Cuvierii* of Temminck, a very beautiful bird; and *Acomus*, founded on the *Phasianus erythrophthalmos*, similar but smaller, and in which genus the female is occasionally spurred. This and the last have rufous tails. Next these the Jungle-fowl.

Gen. GALLUS, Linnaeus.

Char.—Head furnished with a crest of skin; the face nude, and also a loose lappet or wattle, tarsus of the male strongly spurred; the spur long and slightly curved; tail, of fourteen feathers, compressed, divaricated, with the median feathers lengthened, curved and drooping, held semi-erect, the backs of the feathers facing each other; the upper tail-coverts lengthened and curved; feathers of the neck hackled, lanceolate.

This genus comprises the so called Jungle-fowl, the origin of all our varieties of Fowl, and its general characters are familiar to all. Several species are known occurring from India as far as Timor at all events. India possesses two, and Ceylon another species.

812. *Gallus ferrugineus*, Gmelin.

Tetrao, apud Gmelin—figured by Latham as the Hackled Partridge—Blyth, Cat. 1462—*G. bankiva*, Temminck (in part)—Hardwicke Ill. J. Z. 1 pl 43 f. 3 the hen,—Jerdon, Cat. 267—*Ban margh*, or *Jangli-murgh*, II.—*Bankokra* of the Sontals and in Central India—*Gera gogor* of the Gonds (the male), *Kuru* (the hen)—*Natsu-pia*, Bhot.—*Pazok-tshi*, Lepch.

THE RED JUNGLE-FOWL.

Descr.—Male, colors as in the typical Barn-door fowl, viz., rich golden hackles on the head, neck, throat and breast, paler on the sides of the neck and posteriorly; ear-coverts white; back purplish brown in the middle, rich orange brown on the sides; upper tail-coverts lengthened, also bright orange; wings with the lesser and greater-coverts black, glossed with green; median-coverts rich

dull maronne; primaries dusky with pale edges, secondaries chesnut externally, dusky within; tertiaries glossy black: tail with the central feathers rich glossy green-black, the gloss diminishing on the lateral feathers; beneath, from the breast, unglossed black; thigh-coverts the same.

Bill slaty brown; irides orange red; face, comb, and wattles red; legs slaty black. Length about 26 inches; wing 9; tail 15; tarsus $2\frac{3}{4}$. Weight about $2\frac{1}{4}$ lbs

The Jungle-hen has the general colour yellowish brown, minutely mottled with dark brown; and some of the feathers, especially of the upper back and wing coverts having conspicuously pale shafts; the head dusky above, passing into short hackles of dark brown, edged with bright yellow on the neck and sides of the breast; quills and tail dark brown; the central rectrices edged with mottled brown; ear-coverts yellowish; a line down the throat deep bright red-brown ending in a point below, and passing up in a line behind the ears to join a small supercilium of the same hue; breast pale rufous brown, with central pale streaks, lighter on the middle of the belly and becoming dull brown on the flanks, vent, thigh-coverts, and under tail-coverts. She wants the comb and wattles, and has only a small nude red space. Length 16 or 17 inches; tail 7.

The well known Jungle-fowl is found from the Himalayas southwards, on the west of India, as far at all events, as the range of Vindhian hills; and as I have been informed by Mr. W. Blanford since the above remarks were penned, also south of the Nerbudda on the Raj-peepla hills. Col Sykes' variety found in the Western Ghâts with much red in its plumage must be this species, but it is to be wished he had noted the particular locality. On the east, it occurs through Central India and the Northern Circars to near the north Bank of the Godavery. I have heard of its having been killed even south of this, at Cummum, but I cannot speak positively on this head. I have not seen it myself further south than the banks of the Indrawutty, not far from its junction with the Godavery, and there both this species and the next were heard crowing a few yards from each other. I shot one bird, an undoubted hybrid between the two races.

In Central India, this Jungle-fowl is rare, especially towards the Western portion, at Jubbulpore, Saugor, Mhow, &c., but it is very abundant to the East, and particularly so in the Northern Circars. It is not uncommon, too, in the Rajmahal hills, extending to the south bank of the Ganges. Towards the North-west it occurs in the range of hills South of Cashmere, and to the West of Jummoo, but is rare there, though common in the lower ranges near Simla, and thence along the Himalayas to Assam, Sylhet, Chittagong and Burmah. Malayan specimens are decidedly darker in tint, and have the ear-coverts rufous, and perhaps may be considered to be a distinct race or species, which, in that case, would bear Temminck's name, *Bankiva*. This race appears to extend over many of the Malayan islands, as far as Timor, at all events; and Mr. Blyth drew my attention to the statement of Jungle-fowl occurring in the Bonin islands. Certain pale-colored birds from the lower Himalayan ranges were noticed in the Ann. and Mag. Nat. Hist., Vol. XX., p. 389

The Jungle-fowl is very partial to Bamboo jungle, but is found as well in lofty forests and in dense thickets. When cultivated land is near their haunts, they may, during the harvest season and after the grain is cut, be seen morning and evening in the fields, often in straggling parties of ten to twenty. Their crow which they give utterance to morning and evening, all the year round, but especially at the pairing season, is quite like that of a Bantam cock, but shorter, and never prolonged as in our domestic cocks. The hen breeds from January to July, according to the locality, laying eight to twelve eggs, of a creamy white color, often under a bamboo clump, or in some dense thicket, occasionally scraping a few leaves or dried grass together to form a nest. Sooner or later after the breeding season is over, the neck hackles of the male sometimes fall off, and are replaced by short blackish grey feathers.

Where detached clumps of Jungle or small hills occur in a jungly district where these Fowl abound, very pretty shooting can be had by driving them by means of dogs and beaters; and in travelling through a forest country, many will always be found near the roads, to which they resort to pick up grain from the droppings

of cattle, &c. ; dogs will often put them up when they at once fly on to the nearest trees. Young birds, if kept for a few days, are very excellent eating, having a considerable game flavour.

813. *Gallus Sonneratii*, TEMMINCK.

PL Col. 232 and 233—Phas. gallus, apud SONNERAT—Phindicus, LEACH—BLYTH, Cat. 1464—SYKES, Cat. 148—JERDON, Cat. 266—*Jangli murgh*, H.—*Adavi kodi*, Tel.—*Katu koli*, Tam.

THE GREY JUNGLE-FOWL.

Descr.—Whole head and neck, with the hackles, blackish grey, with yellow spots, each feather being blackish, with the shaft white and two spots, the terminal one of somewhat square form, as if a drop of yellow sealing wax ; the other whitish, passing on the wing-coverts into oblong spots of glistening wood-brown ; ear-coverts pale rufous ; the rest of the plumage above and below, blackish grey, the feathers white shafted, and those on the flanks broadly centered and tipped with wood-brown ; outermost primaries dusky, with the shaft and narrow edge pale ; the others black, faintly glossed ; upper tail-coverts glossy purple ; the central tail feathers glossy green, the gloss diminishing on the lateral feathers ; vent dirty brownish ; under tail-coverts glossy black, with white shafts.

Bill yellowish horny ; comb, face, and wattles red ; irides orange brown ; legs and feet horny yellowish. Length 24 inches and upwards in fine specimens ; wing $9\frac{1}{2}$ to 10 ; tail 15 to 16 ; tarsus $3\frac{1}{4}$; weight $2\frac{1}{2}$ lbs.

The Hen is mottled brown above, with pale shafts on the wing-coverts ; beneath blackish brown, the feathers broadly centered with pure white, passing into plain dull brown on the flanks, thigh-coverts, vent, and under tail-coverts, head and neck rufous brown, paler on the chin and throat and somewhat yellowish ; primaries dark brown, the secondaries mottled brown ; tail blackish brown, edged with mottled brown. Length about 17 inches.

This handsome Jungle-fowl is found in Southern India only, extending on the east coast to a little north of the Godavery, in

Central India to the Pachmarri or Mahadeo hills, north of Nagpore, and on the west coast to the Rajpeepla hills, where it meets the Red Jungle-fowl. Its occurrence on the Pachmarri hills is most probably its eastern extension from the Western Ghâts and the Rajpeepla hills, and it will probably be found all along the Sathpoora range. I do not know of its occurrence east of the Mahadeo hills, till the neighbourhood of the lower part of the Godavery is reached. It is very abundant on the Malabar Coast, especially in the more elevated districts, as in the Wynaad, and it ascends to the summit of the Neilgherries; it is also common in suitable localities on the Eastern Ghâts, and in the various isolated ranges of hills in the south of India. It is not rare in the Naggery hills near Madras, and is constantly brought for sale to the Madras market.

Like the last, it is particularly partial to bamboo jungles. Early in the morning, throughout the Malabar Coast, the Wynaad, &c., Jungle-fowl may always be found feeding on the roads, and, with dogs, you are certain of getting several shots on the road side, the birds perching at once on being put up by dogs. In some districts where they can be beaten out of the woods, and especially on the Neilgherries, very pretty shooting is to be had at this Jungle-cock, the sharply defined woods, or 'sholas' as they are called, being well adapted to being beaten for game. The Hen lays from February to May, generally having from seven to ten eggs, of a pinky cream colour, under a bamboo clump. The call of the Cock is very peculiar, being a broken and imperfect kind of crow, quite unlike that of the Red Jungle-cock, and impossible to describe. When taken from the jungles they are more wild and not so easily domesticated as the Red Jungle-fowl; but they have bred in confinement with Hens of the common breed. I have already noticed the occurrence, in a wild state, of hybrids between this and the Red Jungle-fowl.

Ceylon possesses a separate species of Jungle-fowl, *Gallus Stanleyi*, Gray, (*G. Lafayetti*, Lesson; *lineatus*, Blyth), something like *Bankiva*, but red beneath; and Java has another very distinct species, *Gallus furcatus*, Temminck. Several other races are noted, but some of them are doubtful species, *G. aneus*, Temm.,

being considered a hybrid between *fufratus* and *bankiva*. Gray has lately figured a fine Cock from Batavia, *G. Temminckii*.

Lastly we come to what may be considered a dwarfed or degraded race of Jungle-fowl, peculiar to the Continent of India and Ceylon, the so called Spur-fowl of sportsmen in the South, the double-spurred Partridge of some. These birds, which are only of the size of Partridges, have no comb nor wattles, but they have nude orbits, quite the port of Jungle-fowl, and the sexes differ nearly as much, in which point they do not agree with the Partridge group. They moreover, frequent woods and dense cover, never coming into the open

Gen. GALLOPERDIX, Blyth.

Char.—Bill somewhat lengthened; orbits nude; tail moderately long, broad, of 14 feathers, held erect and folded as in fowls; tarsus of the male with two or more spurs; females also with one or more spurs. Of small size. Sexes differ much in colour.

Only three species are known at present

814. *Galloperdix spadiceus*, GMELIN.

Tetrao, apud GMELIN—BLYTH, Cat. 1458—HARDWICKE, Ill. Ind Zool 1 pl. 42 f. 2—GOULD, Birds of Asia, pt VI. pl. 3—, SYKES, Cat 160—JERDON, Cat. 274—Polyplectron northia, GRAY, HARDWICKE, Ill. I. Z. I. pl. 43, f. 1 (the female)—*Chota jangli murgli*, H.—*Yerra kodi*, and *Jitta kodi*, Tcl.—*Saravi koli*, Tam. *Kokatri*, Mahr.

THE RED SPUR-FOWL.

Descr.—Male, head and nape dusky olive-brown; the forehead and round the eye pale whity brown, somewhat buff in some individuals; chin, throat, and sides of neck pale brown; the rest of the body both above and below, rich brown-chesnut or bay; each feather pale edged; primaries brown; the secondaries and tertiaries more or less minutely mottled; tail with the central feathers chesnut, the others dark-brown, more or less mottled, this disappearing with age; lower abdomen, vent, and under tail-coverts, olivaceous.

Bill dusky-horny; orbits red; irides orange brown; legs and feet vermillion red. Length 14 to 14½ inches; wing 6½; tail 5; tarsus 2; weight 12 to 13 oz.

The female has the crown dusky blackish, the neck olive brown, and the rest of the upper plumage pale rufous-brown, each feather with two or three blackish bands, and minutely speckled, and the tip pale; the rump and upper tail-coverts are minutely freckled; the tail mostly blackish, with mottled rufous bars, tending to become obsolete; primaries, their coverts, and the winglet, spotless dusky brown; throat albescent; neck olive brown, the feathers becoming rufous in the centre, and tipped with black; breast and flanks bright ferruginous, with narrow black tips; belly dusky brown; under tail-coverts freckled rufous brown.

Length 13 inches; tail 4½.

The male bird has usually two spurs on each tarsus, sometimes three on one, and occasionally two on one leg and one on another, often long and sharp. The hen bird has usually one on each leg, sometimes absent on one leg; and occasionally two on one leg and one on the other.

The Red Spur-fowl is found throughout the South and many parts of Central India, extending into the Rajmahal and Kurrupore hill ranges south of the Ganges, but rare there. I have seen it most abundant in the Malabar jungles, from near the level of the Sea to the Neilgherries, up to nearly 7,000 feet of elevation, but more common lower down; in the Northern Circars; in the eastern parts of Central India; in the high land between Nagpore and the Nerbudda, and also in the Vindhian range. As both male and female are figured in Hardwicke's Illustrations, it may occur in some parts of the North-western Provinces, but I have not seen it recorded higher than Bundelkund. In the less wooded ranges of the Eastern Ghâts, it is rare, being there replaced by the next bird. This species is stated in some works to inhabit Madagascar as well as India, but this is exceedingly doubtful. If it really has been received as from Madagascar, I would accept Mr. Blyth's conjecture that it and *Francolinus sinensis* (also stated to have been received from

that Island) have been introduced into the Mauritius, and sent thence along with various Madagascar birds. It is more probable, however, that some other species has been mistaken for it, probably *Tetrao madagascariensis*, which, indeed, Gray places next *Galloperdix* in his genus *Plectrophorus*; but which most probably belongs to the African *Francolinus* rather than to the *Gallinae*.

The Red Spur-fowl chiefly affects forests, or dense thickets of bamboos, and is difficult to obtain without dogs, as it runs before the sportsmen or beaters; and, in driving some of the large forests for Deer, these Spur-fowl as well as Jungle-fowl and Pea-fowl often run past the concealed gunner. On the Neilgherries good shots can be had in beating the woods there, and two or three Spur-fowl generally form part of a miscellaneous bag on those hills. Dogs cause it to perch on trees at once, and it always roosts on trees at night. It feeds on various kinds of grain, and very much on insects, especially on various kind of bugs, larvæ of small blattæ, &c., it comes less to the open to feed than Jungle-fowl, and I have never flushed it in fields. It runs with its tail raised, and is always considered a sort of Jungle-fowl by the natives. The call is a sort of crowing cry which the Mahrattas have attempted to imitate in their name, and the call note of the hen is quite fowl-like. It is stated to breed in dense thickets in March and April. The flesh, though rather dry, is of high flavour, and if, as on the Neilgherries, it can be kept a few days, is really excellent.

815. *Galloperdix lunulosus*, VALENC.

Perdix, apud VALENCIENNES—BLYTH, Cat. 1457—*Francolinus nivosus*, DELESSERT Voy. aux. Indes pl. 10—P Hardwickii, GRAY, HARDWICKE, Ill. Ind. Zool., 1, pl. 52—JERDON, Ill. Ind. Orn. pl. 42 (the female.)—*Jitta kodi*, Tel.

THE PAINTED SPUR-FOWL.

Descr.—Male, head, face, and neck variegated black and white, the feathers being black with white streaks and triangular spots, the head mostly black; the upper plumage and wings rich chesnut, with white spots on the back, sides of neck, shoulders, and wing-

coverts; primaries earthy brown; tail dark sepia brown, glossed with green in old birds; beneath, the throat and neck are variegated black and white, changing on the breast to ochreous buff, with small triangular black marks, which disappear on the abdomen; the flanks, thigh-coverts, and under tail-coverts dull chesnut.

Bill blackish; orbits red; irides red brown; legs horny brown. Length 13 inches; wing 6; tail 5; tarsus $1\frac{1}{2}$.

The female has the top of the head dusky, with the forehead, over the eye, and the nape tinged with chesnut; a pale ruff and moustachial line; the rest of the plumage dull olive brown, changing to ochreous-olive on the breast and abdomen.

Length $12\frac{1}{2}$ inches.

The male has generally two spurs on each leg, occasionally three, and the hen bird has almost always one, frequently two. Young males have the general plumage of females, with the tertiaries and tail chesnut brown, with black bands; and young females have blackish lunulations on part of their plumage.

The Painted Spur-fowl is not found on the Malabar Coast nor on the Neilgherries, but is common in several of the isolated hill ranges of Southern India, and all along the Eastern Ghâts which are more scantily clad with forest than those on the Malabar Coast; also in rocky hills about Hyderabad in the Deccan, and thence sparingly through Central India, and the Saugor and Nerbudda territories to the Monghyr and Mirzapore hills, and perhaps still further West, the male bird being figured in Hardwicke's Illustrations as from Cawnpore. A writer in the *Bengal Sporting Review* states that he has seen them in the Cuttack jungles; but in Goomsoor, a little further south, I saw only the Red Spur-fowl. The same writer states them to be frequently seen on the hilly parts of the Grand Trunk Road. Either this or the last species is called the 'Nerbudda Chukor' in some pages of the same periodical.

This handsome Spur-fowl is especially partial to rocky jungles and tangled coverts, and is a very difficult bird to flush, taking a short and rapid flight, and diving down into some impenetrable thicket. I have often seen it running rapidly across rocks when the jungles were being beaten for large game. From the difficulty

of procuring this bird, it is not well known to sportsmen in general, even in districts where it is not rare; and its qualities for the table are inferior to those of the last species, having less flavour and being more dry. Numbers are snared in the hills not far from Madras, and they are generally procurable in the Madras market. I have kept them in confinement for long. They thrive pretty well, but the males are very pugnacious. The males have a fine cackling sort of call, very fowl-like. This Spur-fowl has been introduced into the Zoological Gardens of London, and appears to be thriving well. A figure of it appeared in Wolf's Zoological sketches of Animals and Birds living in those gardens.

The only other known species of Spur-fowl, *Galloperdix zeylonensis*, is somewhat allied to the last species, but differs conspicuously by the lower parts being mottled black and white, somewhat as in the Painted Partridge. It is figured by Gould in Birds of Asia, pt. VI pl. 2.

Blyth considers *Actilopachus*, an African genus, to approximate *Galloperdix*, but on geographic considerations I prefer keeping it among the Francolins and Partridges as Gray has done. The Turkeys are sometimes placed as a division of the *Phasianidæ*, but I think on grounds both of structure, habit, and geographic distribution, that they ought to be kept distinct. Bonaparte, indeed, places them, and the somewhat less isolated Guinea fowls of Africa, as families in one Cohort, *Craces*, with the *Cracidæ*; and Gray places both Turkeys and Guinea-fowl in his sub-fam *Meleagrinae* of the *Phasianidæ*. Though I can hardly agree with Bonaparte in associating them with the Curassows from which they differ in so many structural details, yet I agree with him that geographic distribution must be considered in allotting a place in the natural system to any group.

The *Meleagridæ* or Turkeys, are birds of large size, with the head and neck naked; a fleshy caruncle hangs from the cere, partially erectile, and the throat is furnished with a pendulous carunculated wattle capable of expansion and turgescence, when the bird is excited either by anger or desire; the tail has eighteen broad feathers, which the male raises erect and spreads, puffing out

his plumage and gobbling. The tarsus is armed with a blunt spur, and the bill is rather short and stout. Three species are now known. *Meleagris sylvestris*, of N. America; *M. ocellata*, of Honduras; and *M. mexicana*, Gould, undoubtedly the origin of the domestic Turkey. They frequent woods, associating in large flocks.

Fam. TETRAONIDÆ—Grouse and Partridges.

Syn. Cohort *Perdices*, Bonap.

Bill generally short, stout, and thick; nostrils, in many, plumed at the base; wings rounded in most, pointed in a few, longer than in the *Phasianidæ*; tail short or moderate, even or very slightly rounded, forked and lengthened in a few; tarsus rather short and stout; face feathered entirely, or with a small patch of nude skin over or round the eye. Plumage of the sexes in general differing but very slightly, sometimes not at all.

The Grouse, Partridges, and Quails, which compose this family, differ markedly in several points from the Pheasants and Jungle-fowls, albeit some of them have more or less resemblance to the birds of that group. The Black-cock with his forked tail and black plumage recalls the coloring of *Gallophasis* and *Acomus*; and the Capercailzie has the perching habits of the Pheasants. But there is something in the physiognomy of most of this family which points them out, even to the common observer, as a distinct group. Their form is heavy, stout, and massive; the neck shorter; the bill stout and short; the tail is shorter, and seldom raised; there is very slight, often no difference between the sexes; and the plumage of most has that peculiar character distinguished as game plumage, rather a vague term certainly, and more evident to the eye than describable in words.

They have, moreover, a totally different geographical distribution, being found over all the world, whilst the *Phasianidæ* are confined nearly to the South-east of Asia. Bonaparte places them as his Cohort *Perdices*; but in relation with the *Pterocitidæ* and *Tinnidæ*, to neither of which they are very closely affined. They, as a general rule, affect open grass lands, moors, fields, and low scattered jungle, in contradistinction to the Pheasant tribe which almost always prefer forests or thick coverts; and

several associate in parties called *coveys*, or *bevis*, and in still larger bodies or flocks in winter. The flesh of all is good and high flavored, more so perhaps than that of the Pheasants, but varying of course according to the group, or even the species.

The *Tetraonidæ* may be divided into Grouse, Partridges, American Partridges, Quails and Guinea-fowl, and, as in the last family, I shall consider these as sub-families. Of these, the Grouse are peculiar to the Northern portions of both Continents. Partridges are found in Europe, Asia and Africa, disappearing in the Malayan Archipelago, except to its extreme west; the American Partridges are confined to the New World; and Quails have the same distribution as the true Partridges, but, conversely to that group, have a tendency to accumulate in the South-eastern portion of the Malayan Archipelago and Australia, where, with *Turnix* of the *Tinamidæ*, they are the only typical Gallinaceous birds. The Guinea-fowl of course are confined to Africa.

The sub-fam. TETRAONINÆ, or true Grouse, are not represented in India, being peculiar to the Northern portion of both Continents. They are mostly birds of large or moderate size, and of strong flight, with the tarsus and toes more or less feathered; they frequent heathery moors, or upland and hilly pastures. Some, the Grouse, are polygamous; others, as the Ptarmigan, so similar otherwise to Grouse, are monogamous. The plumage is in general dark, and of very game character, and the flesh is the most highly flavoured of any of the *Gallinacæ*. The best known are the Scottish Grouse, *Tetrao scoticus*; the Black-cock, *Lyrurus tetrix*; the noble Capercailzie, *Urogallus vulgaris*; and the mountain-loving Ptarmigan, *Lagopus mutus*. Several other species of Grouse occur on the Continent of Europe and Northern Asia, and one species of Ptarmigan occurs in the Caucasus, but as yet no species of Grouse or Ptarmigan has been observed on the Himalayas or adjacent territories. The Ruffed Grouse of Europe, *Bonasa betulina*, Scopoli, descends to a lower latitude than any of the true Grouse; and Mr. Blyth states that he has recognised a new species of this group among some Chinese drawings. Many Grouse are found in North America, one group, the *Centrocercus*

or Pin-tailed Pheasants, as they are there called, being peculiar to that region.

Sub-fam. PERDICINÆ.

Tarsus not feathered; orbits generally plumed, or wanting the nude eyebrow of the Grouse; tarsus often spurred.

This sub-family comprises an extensive group of birds of moderate or small size, found over the greater part of the Old Continent, frequenting fields, pastures, reeds, moors, and rocky hill sides, very rarely preferring forests or jungles. They are distinguished from Grouse by having the tarsus nude and generally scutate. The beak is generally short and tolerably compressed, the margin entire, and the nostrils protected by a hard scale. They lay numerous eggs, and feed on grain, berries, insects, and small molluscs.

There are several distinct types of form among them, differing in the spurring of the tarsus, longer or shorter bill, coloration, and habits; and they are found throughout the Old World, not extending to the eastern portion of Malayana, nor to Australia.

The Partridges occurring in India may be divided into Snow-cocks and Snow-partridges, peculiar to the highlands of Central Asia and the Himalayas; Partridges, (in ordinary parlance) comprising the Francolins, Chukors, Grey-partridges, Wood-partridges and Bush-quails. Besides, there are the true Partridges, represented by the common Grey-partridge of Europe, with one species from Thibet; and the great group of African Partridges.

1st.—SNOW-COCKS AND SNOW-PARTRIDGES.

These comprise two genera of mountain Partridges peculiar to the higher regions of Central Asia, which combine the naked tarsi of Partridges with the habits and aspect of Grouse and Ptarmigan, and may thus be said to form a link, both structurally and geographically between the two groups. Both occur within our limits. Bonaparte places them in his section *Tetrao-gallæ* of his *Pardiciniæ*, but badly associates with them *Galloperdix*, *Francolinus*, and the Grey-partridges of India, and also most of the African Partridges, some of which, from their size, may perhaps enter this group. Gray associates them with the Rock and Sand-partridges (*Chukors*) to form his sub-fam. *Caccabiniæ*.

Gen. TETRAOGALLUS, Gray.

Syn. *Megaloperdix*, Brandt.—*Chourtika*, Motsch.—*Oreotetra*, Cabanis.

Char.—Bill longish, stout, broad; a small naked patch behind the eye; wings moderate and somewhat pointed, having the 2nd and 3rd quills the longest; tail ample, moderate, of eighteen feathers; tarsi short, stout, with a short blunt spur. Of large size—Sexes alike.

Until recently but one species was recognised in this fine group, but now four very distinct species have been discriminated, and a fifth indicated. They are birds of large size, as large as a Black-cock, of a light mottled grey colour; and they frequent the highest spots close to the snows; from their large size they are often popularly called Snow-pheasants; but, from their association with the birds of this group, perhaps had better be called Snow-cocks.

816. *Tetraogallus Himalayensis*, GRAY.

BLYTH, Cat. 1487—GOULD, Birds of Asia, pt. V. pl. 2—*T. nigelli*, apud GRAY, HARDWICKE, Ill. Ind. Zool. vol., 2 pl. 46—*Lophophorus nigelli*, JARD. and SELBY, Ill. Orn. 3 pl. 141—*Jer-monal* in the N. W. Himalayas—*Kabak*, and *Gourkagu* in some parts—*Huin-wal*, in Kumaon—Snow-pheasant, Snow Chukor, and Strath Chukor of sportsmen.

THE HIMALAYAN SNOW-COCK.

Descr.—Crown of head, cheeks, and back of neck grey, the rest of the upper parts light ashy-grey, minutely freckled with black, purer ashy on the wings, and tinged with brownish rufous on the back; each feather of the back, rump, and wing-coverts, striped with dull buff, more rufous, and inclining to chesnut brown on those of the wings; primaries white, broadly tipped with dusky freckled grey; tail reddish on the outer web, minutely freckled with black; freckled grey on the inner webs; beneath, the chin and throat are whitish; a band of cheanut passes from above the eye down the sides of the nape, and another from the angle of the mouth passes down the sides of the neck and meets the first, when

it forms a collar round the lower part of the throat; beneath this the breast plumes are somewhat scale-like, the upper ones greyish with a black lunule, the lower ones whitish; the rest of the lower surface is grey, minutely freckled with brown, pale on the flanks, and with a double broad dash of chesnut on each feather; vent and under tail-coverts white; thigh-coverts dark grey.

Bill pale horny; naked patch behind the eye yellow; irides dark brown; legs yellowish red. Length 29 inches; extent 40; wing 13; tail 8; tarsus 3. Weight $6\frac{1}{2}$ lbs.

The females are somewhat smaller, 24 inches long; wing 12; tail 7.

* This fine bird is found throughout all the Western portion, at all events, of the Himalayan range, as far as Nepal, but it is not certain if it extends eastwards into Sikim and Bootan. It is also found across the higher ranges in Chinese Tartary and Thibet. It is probably the species observed in Cashmere by Vigne, who states that it inhabits the Snowy Punjab on both sides of the valley, but more common on the Thibet side. 'These fine birds,' says Hutton, 'are common in the Hazara mountains, and are called *Kauk-i-durra* or the 'Partridge of the Ghâts' by the Afghans, and they are sometimes sold in the markets of Cabool and Candahar. They rise in coveys of from ten to twenty, and usually have a sentry perched on some neighbouring rock, to give warning of danger by his low and musical whistle. They are difficult birds to shoot. I found them in patches of the so called Tartaric Furze.' Captain Boys states that it is strong on the wing, and that its flights are very protracted. Its note, he says, 'resembles that of a Dipper (*Cinclus*), finishing with the cluck of a *Chuker*. During flight it emits a shrill whistle somewhat similar to that of the Monaul.'

"It is confined" says Mountaineer, "exclusively to the snowy ranges, or the large spurs jutting from them which are elevated above the limits of forest, but is driven by the snows of winter to perform one, and in some places, two annual migrations to the middle regions; in summer they are only seen near the limits of vegetation. In Koonour (Kunawur) they are common at all seasons from Cheenec upwards, but on the Gangetic hills, from June till August, however much a person wanders about on the

highest accessible places, but few are met with, and I have no doubt whatever, but that nearly all which at other seasons frequent this part, retire across the snow into Chinese Tartary to breed. About the beginning of September they are first seen near the tops of the higher grassy ridges jutting from the snow, and the green slopes above and about the limits of forest. After the first general and severe fall of snow they come down in numbers on to some of the bare exposed hills in the forest regions, and remain there till the end of March. This partial migration is probably made in the night after the fall of snow, as I have invariably found them in their winter quarters early the next morning. It requires a deep fall to drive them down, and some mild winters, except a few odd birds, they do not come at all. The birds on each respective hill seem to have a particular spot for their winter resort, which they return to every year the migration is made.

"The Snow-pheasant is gregarious, congregating in packs, sometimes to the number of 20 or 30, but in general, not more than from 5 to 10; several packs inhabiting the same hill. In summer the few which remain on our side are found in single pairs generally, but across the snow where the great body migrate, I almost always, even then, found several together. They seldom leave the hill on which they are located, but fly backwards and forwards when disturbed. The Ring-tailed Eagle is an inveterate annoyer of these birds; inhabiting such exposed situations where there is nothing to conceal so large a bird from his sight, as he sails along the hill side above them, they at once arrest his attention, and are driven backwards and forwards by this unrelenting tormentor all day long. On the appearance of one of these birds, which fortunately for them are not very numerous, they seldom wait till he makes a stoop, but on his making a wheel near the spot where they are, immediately fly off to another quarter of the hill, the eagle never flies after or attacks them on the wing; so that though he allows them little quietude while near their resort, he only occasionally succeeds in securing one.

"The Jer-moonal never enters forest or jungle, and avoids spots where the grass is long, or where there is underwood of any kind.

It is needless to add that it never perches. During the day, if the weather be fine and warm, they sit on the rocks or rugged parts of the hill, without moving much about, except in the morning and evening. When cold and cloudy, and in rainy weather, they are very brisk, and are moving about and feeding all day long. When feeding they walk slowly up hill, picking up the tender blades of grass, and young shoots of plants, occasionally stopping to snatch up a certain bulbous root, of which they seem very fond. If they reach the summit of the hill, after remaining stationary some time, they fly off to another quarter, alighting some distance down, and again picking their way upwards. When walking, they erect their tails, have a rather ungainly gait, and at a little distance have something the appearance of a large grey goose. They are partial to feeding on spots where the sheep have been kept at nights when grazing in the summer pastures. These places have been called "tatters" by the shepherds, and the grass on them keeps green and fresh long after the rest of the hill is quite dry and brown. They roost on the rocks and shelves of precipices, and return to one spot many successive nights.

"Their call is a low soft whistling, occasionally heard at intervals throughout the day, but more generally at daybreak. It is most common in cloudy weather. The first note is considerably prolonged and followed by a succession of low rapid whistles, and it is by far the most agreeable song of all our game birds. This note is only heard when the bird is at rest; when alarmed and walking away, it sometime utters at short intervals a single low whistle, and when it gets on the wing the whistles are shrill and very rapid. However far it flies, the whistling is continued until it alights, and for a few seconds afterwards, but then slightly changed in tone to a few notes which seem in a strange manner to express satisfaction at being again on the ground. However odd the comparison, I can compare the whistling of these birds when flying and alighting to nothing but the difference of sound produced by the wings of a flock of Pigeons when flying, and when alighting on some spot where they have to flutter a few seconds before they can gain footing.

"The Jer-moonall is not remarkably wild or shy. When approached from below, on a person getting within eighty or a

hundred yards, they move slowly up hill or slanting across, often turning to look back, and do not go very far unless followed. If approached from above, they fly off at once without walking many yards from the spot. They seldom in any situation walk far down hill, and never run except for a few yards when about to take wing. The whole flock get up together; the flight is rapid, downwards at first, and then curving so as to alight nearly on the same level. Where the hill is open and of great extent, it is often for upwards of a mile, at a considerable height in the air; when more circumscribed, as is often the case on the hills they frequent in winter, it is of shorter duration, perhaps merely across or into the next ridge.

“They feed on the leaves of plants and grass, and occasionally on moss, roots, and flowers; grass forms by far the greater portion. They are very partial to the young blade of wheat and barley, when it is first springing up and while it remains short; and should there be an isolated patch on the hill where they are, visit it regularly night and morning. They never, however, come into what may be called the regular cultivation. They are generally exorbitantly fat, but the flesh is not particularly good, and it has often an unpleasant flavour when the bird is killed at an high elevation, probably owing to some of the plants it there feeds upon. Though I have spent many summers on the snowy ranges, I never found the nest or eggs, but in Thibet I often met with broods of young ones newly hatched. There were, however, several old birds, and probably more than one brood of chicks, so I could form no correct idea of the number in one brood. They are hardy birds, and easily kept in confinement, but though they will eat grain, I doubt if they would live long without an occasional supply of their natural green food of grass and plants. They may be kept with the least trouble in large cages, the bottoms of which instead of being solid are made of bars of wood or iron wire, so that the cages being put out on the grass, the birds may feed through the interstices.

The eggs which have been found by travellers are about the size of those of the Turkey, but, like those of the grouse, are of a more lengthened form; their ground color clear light olive, sparingly dotted over with small light chestnut spots.”

Another species of Snow-cock occasionally obtained by Indian sportsmen is *Tetraogallus tibetanus*, Gould, figured in the Birds of Asia, pt. V., pl. 4; but as it has not, I believe, been procured on this side the Snowy range, I shall only briefly describe it without giving it a place among the Birds of India. It is the smallest of the group, only measuring 22 inches; wing $10\frac{1}{4}$; tail 7; tarsus $2\frac{1}{2}$. It has the head and neck grey; the ears white; the upper plumage generally freckled with buff, grey, and black, which latter color forms conspicuous dashes; the primaries grey, secondaries broadly edged externally with white, forming a marked wing-band; tail rufous brown; beneath, the chain, throat and breast are white, separated from the grey of the head and neck by a dusky freckled line, and with a gorget of freckled grey and buff, the abdomen white; the flanks and lower belly with dashes of black, and the under tail-coverts entirely black. Bill horny; legs red; called *Huinwal* in Kumaon.

It has been found in Ladak, Rukshu and other places across the Himalayas. Major James Sherwill informed me that he had seen a bird of this genus close to the snows in the Sikim Himalayas, which he was inclined to identify as the present species, and if so, it must be included among the Birds of India; but, as he did not bring specimens, I must content myself with the above notice. Lt. Speke informed Mr. Blyth that it was very tame and fearless, and could be approached so near as to be knocked down by a stone. Lt. Forbes, however, assured me that those which he procured were not quite so accessible, probably having been occasionally shot at and disturbed.

The other species of *Tetraogallus* are *T. caucasicus*, Pallas; (*Caspicus*, Gmelin; *Lophoph. nigelli*, of Jardine and Selby, Illust. Orn. pl. 76) figured by Gould, Birds of Asia, pt. V., pl. 1. This is found in the high mountain ranges of Persia. *T. altaicus*, Gebler, figured by Gould in the same number at plate 3, more resembles *T. tibetanus*, but is larger, wants the white wing-band, and the lower abdomen and thigh-coverts are black. It is from the Altai mountains. *Chourka alpina* of Motchoulski is considered by Gould to form a fifth species of this genus.

Gen. LERWA, Hodgson.

Syn. *Tetraoperdix*, Hodgson.

Char.—Bill stout, short; orbits plumed throughout; wing moderately long, pointed, of great expanse, the 2nd quill longest; tail of fourteen feathers, rather long and strong; tarsi feathered a short way down. Male with short spurs.

This genus, composed of a single species peculiar to the Himalayas, combines the colors of a Grouse with the naked leg of a Partridge. Gould says that it assimilates in a nearly equal degree to a Grouse, Francolin, and Partridge.

817. *Lerwa nivicola*, HODGSON.

Madras Journ. Lit. 1837—*Perdix Lerwa*, HODGSON P. Z. S. 1833—HARDWICKE Ill. Ind. Zool. 2 pl. 44 f. 1—GOULD, Birds of Asia, pt. VII, pl. 8—*Lerwa* in Nepal, *Quour-monal*, or *Koor-monal*—Also *Gulabi*—and *Jer-titar*, i. e. Snow Partridge, in various hill dialects—*Bhyr* or *Bhair* at Simla—*Janguriya* in Kumaon.

THE SNOW PARTRIDGE

Descr.—Head, neck, and the whole plumage, with the wings and tail minutely barred with black and greyish or buffy white, more grey on the head, neck, rump and upper tail coverts, and tinged with chesnut on the sides of the neck, shoulder and wing-coverts; quills dusky brown, narrowly freckled with buffy white on their outer edges; the secondaries broadly tipped with white; tail dusky with speckled bars of grey and rufous, and the feathers black shafted; beneath, the chin is greyish; the throat, breast, and upper part of the abdomen deep chesnut red, with dashes of buff or whitish on many of the feathers, especially on the flanks; lower abdomen, vent, and thigh-coverts barred like the upper part, but with a tinge of rufous; lower tail-coverts chesnut-red, with buffy white tips.

Bill bright red; irides dark brown; legs and feet red. Length 15 to 16 inches; extent 24; wing 8; tail 4; tarsus $1\frac{1}{2}$. Weight 18 oz.

The female is a trifle smaller than the male, and wants the spurs, but does not otherwise differ.

This Game-looking bird appears peculiar to the upper Himalayan region near the snows, several travellers having stated that they had not seen them on the Thibet side of the hills. It is found however along the whole extent of the Himalayas, having been found in the extreme North-west as well as in Sikim. Hodgson states that "these birds have the habits and manners of *Tetrao* rather than *Perdix*. They are gregarious in coveys, nestle and breed under jutting rocks, feed on the aromatics, seeds, and insects found in the proper Himalayan region, which they never quit, and amid the glaciers of which they take impenetrable refuge when disturbed. Trees they wholly avoid, and are usually found on the flatter and quasi-heathery ledges which form steps from the snow-bound summits of the Himalayas. The Lerwas moult, I think, twice a year, but certainly in autumn, their plumage being most imperfect in August. They are splendid game, with a vigorous flight, shy, and in size and strength equal to a Grouse. Their flesh is white, succulent and possessed of a very high flavour."

Dr. Hooker observed it in Sikim, and calls it a small gregarious bird which inhabits the loftiest stony mountains, and utters a short cry of *quik*, *quik*; in character and appearance, it is intermediate between Grouse and Partridge, and is good eating, though tough.

"In general haunts and habits," says Mountaineer "this bird much resembles the Snow-pheasant, frequenting the same high regions near the Snow in summer, and migrating to the same bare hills and rocks in winter. The Pheasant, however, prefers the grassy slopes and softer parts of the hill, the Partridge the more abrupt and rocky portions, where the vegetation is scantier, and more of a mossy than grassy character. They are also more local, and confined more to particular spots, and do not, like the pheasant, ramble indiscriminately over almost every part of the hill. They are generally remarkably tame; when approached, they utter a harsh whistle, and if they keep still, it is often several moments before they can be distinguished, their plumage much resembling and blending with the general colour of much of the ground they

frequent; if approached from above, they fly off at once, if from below they walk away in the opposite direction, calling the whole time, and often cluster together on the top of some large stone in their way. Their flight exactly resembles that of the Pheasant, and the whistle when on the wing being nearly the same, and the birds having the same white on the wings, they could hardly be distinguished when flying past at a distance, but from the size. They seldom fly far, and if followed and put up again, often fly back to the spot where first found. At times they seem unwilling to get up at all, and several shots may be fired at them before they take wing. I once found a flock on a steep ledge of rock in the forest, a few days after a severe snow storm which had driven them down to their winter quarters; they were a little scattered and resting on the projecting ledges, and I fired eleven shots within twenty yards, without one bird attempting to get up. At one bird I fired twice without its moving at all.

"The Snow-partridge feeds on moss and the tender shoots of small plants. It is always fat, and the flesh is tender and well flavoured, and if kept a few days, something like Grouse. They breed near the limits of vegetation, but I have not seen the nest or eggs. I have often met with the young chicks, sometimes a single pair of old birds with their young brood, and sometimes several old birds and two or three broods of chicks, apparently six or seven in a brood. When alarmed, the parent birds exhibit all that distressful anxiety so common with their tribe, and endeavour by drawing the attention of the intruder to themselves to decoy him from the spot. They do not counterfeit lameness like some, but walk away before him, and call out in a most plaintive manner. The young squat close on the ground, or creep beneath the stones, for the herbage where they breed is never sufficiently high enough to hide even the smallest bird."

PARTRIDGES.

We now come to the true Partridges, which, however, form several distinct groups, separated alike by habits, form, and coloration. In India there are representatives of the "Francolins" and the 'Red-legged Partridges' of Europe, and a true Partridge

occurs on the further side of the Himalayas; there are, besides, three other groups, the Grey or Spurred Partridges, peculiar to the continent of India; the Wood Partridges, confined to the Himalayas in India proper, but extending through Burmah into Malayana; and the Bush-quails, peculiar to India.

1st. *Francolins* or Meadow Partridges.

Gen. *FRANCOLINUS*, Stephens.

Syn. *Attagen*, Keys and Blas.—*Hepburnia*, Reichenb.

Char.—Bill moderate or somewhat long, stout, slightly curved at the tip; tail of fourteen feathers, somewhat lengthened, even, or very slightly rounded; tarsi of the male with strong but blunt spurs

The *Francolins* may be said to be Partridges with more lengthened bill and tail, slightly spurred, and with a peculiar and rich coloration. The group may be considered an Asiatic form, extending to the south of Europe, and to the north of Africa. India possesses two species, and there is another in Burmah; they do not associate in coveys, and Blyth states that they appear to him to have more of the general habits of Pheasants than of Partridges, but to this I must demur. Gould considers them allied to *Cernornis* in the general style of coloring, the short spur, and the form of the bill.

818. *Francolinus vulgaris*, STEPHENS.

BLYTH, Cat. 1500—*GOURD*, Birds of Europe, pl. 259—*Tetrao francolinus*, LINNÆUS—*Perdix Hepburniæ*, GRAY, HARDWICKE, Ill. Ind. Zool. pl. 55, (the female)—F. *Henrici*, BONAP.—*Kalattitar*, or *Titir*, H., said to be called *Gaghar* about Benares.

THE BLACK PARTRIDGE.

Descr.—Head, cheeks, and throat, deep black; the top of the head and nape edged with rufous, and with some white spots on the sides of the occiput, forming a pale line; ear-coverts pure white; a broad collar of fine chestnut red passes round the whole neck; upper part of the back black, the feathers edged with rufous and white tipped; the middle and lower back

rump, and upper tail-coverts finely barred black, and whitish, or grey; wings with the coverts black, with broad bay or rufous edges, and the quills barred with rufous and black; tail black, the middle feathers barred with black and grey, on the upper parts; the lateral feathers being similarly barred at their base only; plumage beneath, from the rufous collar, deep black, more or less banded on the lower part of the abdomen with white, and the flanks of the breast and abdomen spotted with white; thigh-coverts and under tail-coverts chesnut.

Bill black; irides brown; legs yellowish red. Length 13 to 14 inches; extent 20; wing $5\frac{3}{4}$; tail $3\frac{1}{2}$. Weight 13 to 15 oz.

The female differs in wanting the black head and neck of the male, which is more or less rufous, mixed with brown, the throat and sides of the neck being white, and a dusky band surrounds the white portion of the ear-coverts; the back and wings are dusky, with pale rufous edges, whitish on the wing; the back, rump, and upper tail-coverts, are barred pale rufous and dark brown; the tail feathers blackish, with pale bands; the medial pair brown banded; beneath, from the throat, the plumage is white with black spots, longitudinal and arrow-shaped in front, becoming more transverse on the flanks and lower abdomen.

Length $12\frac{1}{2}$ to 13 inches; weight 12 to 13 oz.

The males have a short blunt spur, tubercular at first.

The black Partridge is found throughout the whole of Northern India, from the Himalayas to the valley of the Ganges, but not that I am aware of, extending to any distance beyond the valley of the Ganges until above Allahabad, beyond which it passes to the Punjab, and southwards, through Rajpootana to Sindh and perhaps to Goozrat. Eastwards it extends through Dacca to Assam, Sylhet and Tipperah, but I have seen no record of its occurrence further south in this direction, and it is replaced in Burmah by an allied species. It occurs south of the Ganges between that river and the Hooghly, and I have seen notices of the black Partridge having been shot in Midnapore and Cuttack, but it is certainly rare, south of the Ganges. Various notices appear in several pages of the Bengal Sporting Magazine of Black Partridges occurring in the Saugor and Nerbudda territories, Mhow and Bun-

delkund; but in these instances, it has certainly been confounded with the nearly related Painted Partridge, as the Black Partridge does not, to my own knowledge, occur for many miles north of Mhow, Saugor or Jubbulpore, and I suspect not till the valley of the Jumna is reached. Adams says that the Black Partridge is plentiful in Bombay and Bengal, but as he does not give the Painted Partridge at all, he has in some instances, at all events, confounded it with that bird. The Black Partridge extends along the valleys of the Himalayas for some distance in the interior, but not ascending high; and I observed it on the Khasia hills at nearly 4,000 feet of elevation. The Black Partridge from Sindh is put as distinct by Bonaparte under the name of *F. Henrici*, and a drawing of the Sindh bird in Sir A. Burnes' collection gave some color to the separation; but Sir B. Frere, to whom I applied, having sent several specimens from Sindh, they proved to be perfectly identical with the Partridge of Bengal. Out of India the Black Partridge inhabits Northern Africa and the South of Europe, especially Malta, Sicily, and probably part of Western Asia.

The Black Partridge frequents, by preference, grass meadows near water, also cultivated fields of corn, mustard or pulse, and any patch of moderately high, green herbage, also occasionally jhow jungle; and it is not unfrequently flushed in moderately long grass interspersed with bushes, even at some little distance from water. It never associates in regular coveys, though several may be flushed not far from each other; and, indeed, it is generally to be found in pairs at all seasons.

From January to August, the call of the Cock-bird may be heard, a harsh sort of cry which has been variously rendered by sounds in different languages; but these imitations, though intelligible to those who have heard the call, fail to give anything like a correct idea to a person who has not had the opportunity of hearing it. The Mussulmans say that it repeats the pious words, '*Sobhan teri kudrut*;' others say it calls out '*Lussun, piaz, udruk*,' or garlic, onions, ginger. Adams syllabizes it as '*Lohee-uha-which-a-which*', and some one else puts it as '*juk-juk, tee-teetur*.' One writer calls it like the harsh grating

blast of a cracked trumpet; but it is far from being a loud call, though sufficiently audible for a great distance. This call is almost always uttered from a slight eminence, a bank, ant hill, or clump of earth, and where it abounds, answering cries may be heard from all sides. It generally calls much after rain, or after a heavy dew.

The hen Partridge breeds from May to July, laying ten or twelve eggs (sometimes, it is stated, as many as fifteen) of a pale bluish white colour, according to some writers, but those I have seen were pale greenish, when first laid; and she usually has her nest in the grass, sometimes in an Indigo field, and occasionally in a Sugar-cane field.

In the cold weather, after the young have flown and separated from their parents, they may be found scattered over a greater expanse of country than in the hot weather and rains, and are often to be found in fields far from water. This Partridge is stated occasionally to perch on and to roost on trees, but this is certainly a rare habit with this species, though not uncommon with the Painted Partridge.

The Black Partridge is strong on the wing, but flies steadily and affords a fair shot. Its pursuit is a favorite sport in many parts of the country where it is at all abundant. It is stated in the *Bengal Sporting Magazine*, for 1841, that seventy-five brace have been bagged in one day by one gun, near Kurnal in the Upper Provinces, but it is now everywhere more scarce than it used to be formerly. It is tolerably good eating, especially when kept for a few days and eaten cold. In some parts of the country tippets used to be made of the beautiful black, white-spotted feathers of the lower plumage, and were in much request, but they are rarely procurable now.

819. *Francolinus pictus*, JARD. and SELBY.

Perdix, apud JARDINE and SELBY, Ill. Orn. pl. 50—BLYTH, Cat. 158—SYKES, Cat. 158—JERDON, Cat. 272—*Kala-titar*, H. and Mahr.—*Kakkerā kodi*, Tel.

THE PAINTED PARTRIDGE

Descr.—Forehead, lores, face, broad supercilium, and ear-coverts, ferruginous-chesnut; the top of the head dark brown with pale

edgings; the neck all round pale ferruginous; the upper part of the back and scapulars deep brown, the feathers edged laterally with creamy white, and this gradually passing into the markings of the wings, which are chesnut with black bands; the lower back, rump and upper tail-coverts are beautifully marked with undulating lines of black and white; tail deep brown, the feathers finely cross-barred at their base; beneath, the throat is white, with longitudinal dark lines; the whole of the rest of the lower surface variegated black and white, each feather being white, with two dark cross-bands, and the shaft and tip black, these dark bands gradually narrow towards the vent; under tail-coverts chesnut, the feathers of the flanks and sides of the rump are tinged with pale ferruginous

Bill blackish; irides dark brown; legs yellow red Length 12 inches; wing 6; tail 2 $\frac{3}{4}$, tarsus 1 $\frac{3}{4}$ Weight 11 to 13 oz

The female differs in having a somewhat ferruginous tinge beneath, and in the throat being more or less rufous

The Painted Partridge may be said to take the place of the Black in Central and part of Southern India. It is found throughout Bundelkund and the Saugor and Nerbudda territories, and thence south through Nagpore and the Deccan, to about N. L. 15°, gradually becoming more scarce southwards. I have heard of its occasional occurrence near Bangalore still further south, but where the land is higher and the climate cooler West, it extends into Candeish, and perhaps Guzerat, but is not known on the Malabar Coast, and eastwards, it is found throughout Chota Nagpore and adjacent lands to the more open parts of the Northern Circars, as far as Cuttack, but far more rare there than in the west of the Peninsula I have found it most abundant in the Deccan near Jalna, and at Mhow; less so in Saugor, Nagpore and Hyderabad.

Like its northern congener, it delights in grassy plains and fields, but more affects open, dry, and raised plains with scattered bushes, than the low-lying, damper meadows that the Black delights in. It is always, when the grain is ripe, as well as at other times not unfrequently, to be found in wheat fields and other cultivated lands, and occasionally in open and grassy glades in