

## THE DWARF BUNTING.

*Descr.*—Male, above streaked with black, rufous, and grey-brown, most rufous on the back and scapulars, supercilium pale rufescent, with a broad black line above; ears, and spot on the nape, rufous; wings dusky, edged with ruddy olive; tail dusky, with a broad oblique white line on the outer feathers, and a narrower one on the penultimate; beneath, whitish, with a dusky throat-band, dusky streaks on the breast and flanks, and two dusky lines on the chin, which meet the throat-band.

Bill horny; legs pale fleshy brown; irides brown. Length  $5\frac{1}{4}$  inches; wing  $2\frac{3}{8}$ ; tail  $2\frac{1}{4}$ ; bill at front  $\frac{3}{8}$ ; tarsus  $\frac{5}{8}$ . The female is dull olive greenish, with a rufous tinge; wing-coverts tipped whitish; beneath whitish-yellow, sullied on the breast, and streaked on the flanks and sides of the foreneck.

This small Bunting is found throughout the whole extent of the Himalayas, during the winter. I procured it at Darjeeling; Hodgson in Nepal; and Adams in the N. W. It frequents bare spots of ground with low bushes, in small flocks. Adams says that it has the habits of a Redpole. Quite recently I shot one near Kolassee, in the Purneah district, frequenting grass and bushes near a small river, and, as it is not a bird likely to be remarked, it will probably be found in similar places throughout the plains in the North of India, during the cold weather.

It is an inhabitant, in summer, of Northern and Central Asia, and has been killed in Europe. Swinhoe saw it in occasional flocks in China, during winter.

## 2nd.—Yellow Corn-buntings.

Gen. *EUSPIZA*, Bonap.

*Char.*—Bill strong, sub-conic, with the mandibles about equal, and scarcely a trace of a palatal knob; wings and tail rather long, firm.

These Buntings visit various parts of India in large flocks, during the winter, and are very destructive to the crops of grain. The two most typical species have no white on the outer tail-feathers.

### 721. *Euspiza melanocephala*, GMELIN.

Emberiza, apud GMELIN—SYKES, Cat. 101—JERDON, Cat. 179—GOULD, Birds of Europe, pl. 172—E. simillima, BLYTH, J. A. S. XVIII. 811—BLYTH, Cat. 708 and 709—HORSF., Cat. 737—*Gandam*, II.

#### THE BLACK-HEADED BUNTING.

*Descr.*—Whole head, including the ear-coverts, black, the feathers generally (*i. e.* in winter) edged light brown, this disappearing towards spring; back and scapulars rich chesnut, passing to yellowish on the rump and upper tail-covert, the feathers being edged with bright yellow; wings and tail brown, with pale edgings to all the feathers; beneath, from the chin to the vent, bright yellow, passing behind the ear-coverts to the nape; the side of breast chesnut, continuous with the color of the back.

Length  $7\frac{1}{2}$  to 8 inches; wing  $3\frac{1}{10}$  to 4; tail 3; bill at front  $\frac{5}{10}$ ; tarsus  $\frac{9}{10}$ .

The black-headed Bunting is found in India, only in the North-western Provinces, most abundant in the Deccan, and thence extending to the Upper Provinces of Hindustan. It makes its appearance in the Deccan usually about the end of November; is found in immense flocks, and is very destructive to the crops of Jowaree, and other grains. It leaves early in March, and certainly does not breed in any part of India. It is a well known bird in Asia Minor, and the South-east of Europe, and is occasionally killed in France and Germany. Tristram states that it breeds in Corfu, frequenting brushwood on hill sides, and has an agreeable song. Drummond remarks that it builds often in the stump of an old vine, and that, in Crete, they seem to be confined to certain localities where they breed.

Blyth was misled by a small specimen to separate it from the European species, and Horsfield has followed Blyth in making it distinct. This latter naturalist now admits its identity with the European bird.

### 722. *Euspiza luteola*, SPARRMAN.

BLYTH, Cat. 710—HORSF., Cat. 738—E. icterica, EVERS—Gen. Birds, pl. 91—E. brunniceps, BRANDT—E.

personata, apud BLYTH (olim)--*Gandam*, H. in Central India.  
—*Dalchidi*, Sindh—*Pacha jinuwayi*, Tel.

#### THE RED-HEADED BUNTING.

*Descr.*—The whole head, neck, and breast, rich chesnut; back and scapulars yellowish or greenish-yellow, with dark brown striæ; rump and upper tail-coverts deep yellow, faintly streaked; quills and tail brown, the coverts and secondaries broadly edged with pale whity-brown; quills and rectrices narrowly edged with the same; beneath, from the breast, including the sides of the neck, rich yellow.

Bill pale fleshy yellow; legs brown; irides brown. Length nearly 7 inches; wing  $3\frac{1}{2}$ ; tail barely 3.

The young, and perhaps the females also, want the rich chesnut head and breast of the adult male; the general colour is brownish above, fulvous beneath, passing to yellowish on the rump, and on both upper and lower tail-coverts.

The Red-headed Bunting is found in various parts of India, but locally distributed. Beginning from the South, I have seen it rarely in Coimbatore, in Mysore, Cuddapah, and the edges of the Eastern Ghats. Mr. Elliot obtained it abundant at Dharwar; I saw it near Nagpore, and tolerably abundant at Mhow and Saugor; but I never obtained it, nor saw it, that I am aware of, among the thousands of *E. melanocephala*, that yearly visit the corn-fields about Jalna. Mr. Blyth has obtained it from Central India, and from the Upper Provinces, and it occurs also in Scinde and the Punjab, during the harvest season, but never in the Himalayas. Out of India it has been found in Affghanistan and other parts of Central Asia, but not in Western Asia, nor in Europe. Like the last, it is only a cold weather visitant to India, but does not, in general, appear in the vast numbers that *E. melanocephala* does in the Deccan; yet I have observed considerable flocks near Saugor, and seen them netted there. This Bunting prefers cultivated land, with bush jungle near, to which it can retreat during the middle of the day, and it is also frequently seen about hedges.

It appears to breed in Affghanistan, for Hutton says—It arrives at Candahar the beginning of April, and departs in autumn. Adams states that it has a sweet and melodious song.

The next species differs from the type of the preceding two by having the outer tail-feathers marked conspicuously with white, and perhaps might be ranked with the true Buntings; but, in its mode of coloration, and its more extensive migrations, as well as in the strong beak, it resembles the last two, which it thus appears to represent in Eastern India. Horsfield and Bonaparte both class it in *Euspiza*; Cabanis separates it as *Hypocentor*.

### 723. *Euspiza aureola*, PALLAS.

Emberiza, apud PALLAS, Zoog. Ross. As. pl. 50—GOULD, Birds of Europe, pl. 174—BLYTH, Cat. 711—*E. flavogularis*, McLELLAND, P. Z. S. 1839—BLYTH, Cat. 712, the female—*Passerina collaris*, VIEILLLOT.

#### THE BROWN-HEADED BUNTING.

*Descr.*—In winter plumage, above dark maroon-brown, blackish on the head and interscapulars; the feathers edged lighter on the back, rump, wings, and tail; ear-coverts mixed yellow and grey; eyebrow, chin, throat, breast, and belly yellow; primaries, and tail, dark brown; a large white spot on the lesser wing-coverts, and a white edging to the lower wing-coverts; the two outer tail-feathers, with a wide oblique patch of white, occupying the greater part of feathers; the next with a narrow patch on the inner web close to the shaft. In summer there is a dark brown collar round the throat and upper part of the breast, and the flanks are brownish; the forehead, face, ear-coverts and chin also become black.

The female is light rufescent-brown above, the eye-brows and plumage beneath fulvous yellow, paling posteriorly.

Length about 6 inches; wing  $3\frac{1}{2}$ ; tail  $2\frac{1}{2}$ .

This Bunting, an inhabitant of Siberia and Central Asia, in winter straggles sparingly into Nepal and the S. E. Himalayas, but is more abundant in Assam, Tippera, and Burmah. It avoids Bengal and the plains of India. It is occasionally found in Europe. Swinhoe found it in China in flocks, in autumn, feeding on the ripening corn.

*Emb. rutila*, Pallas, of Northern Asia, was lately found by Mr. Blanford in Upper Burmah; and these two appear to be the only Buntings found in Burmah.

## 3rd.—Crested Buntings.

The next and last Bunting differs remarkably in its black plumage, and crested head.

Gen. MELOPHUS, Swainson.

*Char.*—Bill compressed, with the upper mandible slightly notched near the tip; wings rather short; tail even; hind claw slightly lengthened; head with an erectile frontal crest; otherwise as in *Euspiza*.

This genus differs but slightly in structure from *Euspiza*, but the coloration is so remarkable, that I shall here keep it as a distinct type. In its habits, too, it differs, never associating in large flocks, and chiefly frequenting hills and ravines. Bonaparte places it among the crested Buntings of America, as does Gray in his List of Genera.

724. *Melophus melanicterus*, GMELIN.

*Fringilla*, apud GMELIN—JERDON, 2nd Suppl. Cat. 182—HORSE., Cat. 743—*Euspiza* Latham, GRAY—BLYTH, Cat. 713—*Emb. cristata*, VIGORS, P. Z. S., 1831—SYKES, Cat. 103—*E. subcristata*, SYKES, Cat. 104 (the female)—*E. erythroptera*, JARD. and SELBY, Ill. Orn. pl. 132—*E. nipalensis*, HODGSON—*Pathar chirta*, H.

## THE CRESTED BLACK BUNTING.

*Descr.*—Male—The whole body, with crest, glossy blue black; wings and tail dark cinnamon, with dusky tips; tail-coverts at their base black and cinnamon.

Bill fleshy brown; legs red brown; irides dark brown. Length  $6\frac{1}{2}$  inches; extent 10; wing  $3\frac{1}{4}$ ; tail  $2\frac{3}{4}$ .

The female is dusky brown above, the feathers edged light olive brownish; beneath rufescent white, or pale brownish fulvescent, with dusky streaks; quills and tail dull and paler cinnamon than in the male, dusky internally, and on the central tail feathers. She is a little smaller, and the crest not so highly developed.

The Crested Black Bunting is found on the Himalayas, extending into Central and Southern India. I have seen it at Mhow, among the Vindhian Hills; at Saugor, and on the banks of the

Nerbuddah ; also in the Nagpore country. Sykes obtained it in the Deccan, where he found it on rocky and bushy mountains. I found it in similar places at Mhow and Saugor, but also occasionally on hedges and trees near cultivation, not far, however, from hilly ground. Hodgson found it on hedgerows and brushwood on the upland downs in winter ; resorting in summer to the Northern region, and it is said to be common near Simla and Mussooree. It does not, I believe, breed in the plains of India.

It also inhabits Central Asia and China, and is figured in Buffon, Pl. Enl. pl. 224, f. 1 as "LeMoineau de Macao." Swinhoe states that a few couple only breed in China, but that it is common in winter. I have had it caged, and it has a rather pleasant chirping song.

Many other Buntings are found in Central and Northern Asia, and Europe, but none in the Malayan region. Among them may be noticed the *E. citrinella* (the yellow ammer), *E. miliaria*, *E. provincialis*, *E. lesbia*, *E. cirrus*, *E. schœniclus*, and *E. pyrrhuloides*, all from Europe ; the two last constituting the *Schœniclus*, of Bonap., or *Cynchramus* of Kaup.

Asia possesses in addition *E. cinerea*, Strickl., and *E. shah*, Bonap., from Western Asia, *E. elegans*, T., *E. chrysophrys*, Pall., *E. sulphurata*, T., *E. coides*, Brandt, (not of Temm.,) and *E. rustica*, Pallas, from Japan and Northern Asia. Gould has *E. castaniceps*, and Swinhoe *E. canescens*, both from China. The African Buntings are classed under *Fringillaria* ; and the American Buntings form several natural groups, very distinct from those of the Old World, and which appear to grade into the *Tanagers*. One species, the *Gubernatrix cristatella*, a beautiful crested bird, from South America, deserves especial notice.

The long-clawed or Lark-heeled Buntings, forming the genus *Plotrophanes*, Meyer, are peculiar to the Northern portions of both Continents, and evidently grade into the Larks.

The Tanagers, TANAGRINÆ, are a very numerous group, almost confined to South America and the more southern part of Central America. They are very richly colored, and, in general, have a notch on the upper mandible, from which Cuvier placed them in

the *Dentirostres*. The bill is more or less triangular at the base, and the culmen more or less arched. They feed on fruit and insects, build slight nests on trees, and many have a pleasing song. Selater has published a valuable Monograph of this family, describing many new species. They may be said to stand in the same relation to the rest of the *Conirostres*, that the *Ampelidæ* do towards the *Dentirostres*; and, indeed, some naturalists hint that the *Sylvicolinæ*, part of our *Ampelidæ*, join the Tanagers (*vide* p. 289).

Sub-fam. FRINGILLINÆ.

Bill varied in size and form, more or less conical and thick, short and bulged in some, slender and more elongate in others; wing moderate or long, 1st primary wanting.

The Finches, as here recognised, constitute an extensive series of birds of considerable variation as regards the form and size of the bill. They are chiefly seed-eaters, cracking small seeds between their mandibles, and rejecting the husk by the joint action of the mandibles and the tongue.

The male is, in general, more brightly colored than the female, and becomes still more so in the breeding season, not by a fresh moult in all, but chiefly by the shedding of the deciduary margins to the feathers, in some, perhaps, by a change of colour in the feathers themselves. The bill, too, of many becomes darker at this season. Many are colored more or less red, a few yellow.

The young of most are fed with vegetable food, not with insects, as in the Sparrows and Buntings. Many sing pleasingly, and they have a peculiar call note. They are more or less gregarious in winter. The nest is generally neatly made, and the eggs are mostly white, with brown spots and dots, never lined as in the Buntings. They are, with a very few exceptions, confined to the temperate and colder regions of the Northern hemisphere; and, in India, with one exception, are confined to the Himalayan region, and in many instances only wintering there.

They may be divided into the following groups, distinguished chiefly by the form of their bill, and mode of coloration, but they intergrade much with each other.

1st.—Grosbeaks; 2nd.—Bull-finches; 3rd.—Cross-bills; 4th.—Rose finches; 5th.—True Finches.

Bonaparte classes them in *Fringillinae* and *Loxiinae*, placing the Grosbeaks, true Finches, and Bull-finches in the former; while the Cross-bills and Rose-finches, with the Linnets, and the Mountain-finches are classed among the latter.

1st.—Grosbeaks—*Coccothraustinae* of some.

In these the bill is very large, thick, and conical; the wings rather long, and the tail somewhat short; the legs are stout and strongly scutate; and they comprise the giants of the Finch tribe. They frequent forests, and live chiefly on stony fruit, which they crush with their powerful mandibles. There are only a few species, spread over Europe, Asia, and North America; and, of these, four species are found in the Himalayas, belonging to two genera.

Gen. *HESPERIPHONA*, Bonap.

*Char.*—Bill conic, thick, half as long again as deep, slightly tumid for the basal two-thirds, with the tip of the upper mandible bent a little over that of the lower; wings with the 2nd, 3rd, and 4th quills sub-equal, 1st rather shorter; tail rather long, even or sub-furcate.

This genus was founded on a bird from North America, and has a somewhat elongated form compared with other large Grosbeaks. The males are black and yellow, and the females duller. There are two species in the Himalayas.

## 725. *Hesperiphona icterioides*, VIGORS.

*Coccothraustes*, apud VIGORS—GOULD, Cent. Him. Birds, pl. 45—Birds of Asia, pt. III, pl. 13—BLYTH, Cat. 687—HORSF., Cat. 697.

### THE BLACK AND YELLOW GROSBEEK.

*Descr.*—Male, with the head and neck, wings, thigh-coverts, the extreme tail-coverts, and tail, black; the rest of the plumage rich yellow, inclining to orange on the nape, and paler beneath.

The female is dull olivaceous grey, with the back and rump tinged with fulvous, and the abdomen and under tail-coverts more strongly fulvous, or rusty yellow; quills and tail black.

Bill yellow; legs fleshy. Length 9 inches; wing  $5\frac{1}{2}$ ; tail nearly 4; bill at front 1. The female is a little smaller.

This handsome Grosbeak has only been found in the N. W. Himalayas, extending into part of Nepal, but it is unknown further East. Hutton says that it is only found in the interior of the hills. Adams states that it haunts the Pine-forests of Cashmere in small flocks, and that its call-note is loud and plaintive.

726. *Hesperiphona affinis*, BLYTH.

J. A. S. XXIV. p. 179.

THE ALLIED GROSBEAK.

*Descr.*—Very nearly allied to the last species. Differs in the male having the black portion of its plumage deep and shining instead of dull ashy, black; the black of the head extends somewhat lower down, and the interscapulars and axillaries are also black, and the tibial feathers are yellow, whilst in *icterioides*, the reverse is the case. The female differs more, having the upper parts olive-green, tinged with yellowish on the collar and rump, and more brightly so on the lower plumage; wings and tail black; the coverts, secondaries, and tertiaries broadly margined externally with yellow green; the crown and ear-coverts ashy, passing into pale grey on the chin and throat.

Bill bluish in winter, yellow in summer; feet fleshy yellow. Length not quite 9 inches; wing  $4\frac{3}{4}$ ; tail  $3\frac{1}{2}$ .

This is a somewhat smaller species than the last, with a slightly smaller bill; the males resemble each other very closely, but the females are very distinct. It has only hitherto been sent from the extreme North-west, viz., the Alpine Punjab.

One or two species of this genus, found in North America, are said by Bonaparte to differ in their somewhat longer wings.

Gen. MYCEROBAS, Caban.

Syn. *Strobilophaga*, Hodgson.

*Char.*—Bill enormous, very thick, as deep as long, very nearly conic; the upper mandible compressed, and slightly bent over, with a sort of tooth at its base; commissure sinuate; wings rather

long, with the first three primaries nearly equal, the second slightly longest; tail moderate, emarginate.

In this genus, the plumage of both sexes is black and yellow, but the coloring differently disposed to what it was in the last. Mr. Blyth remarks that the typical species manifests a very remarkable affinity with the diminutive and slender-billed Siskins of this sub-family, both in plumage and structure of wings and tail.

### 727. *Mycerobas melanoxanthos*, HODGSON.

*Coccothraustes*, apud HODGSON—GOULD, *Birds of Asia*, pt. III. pl. 11—BLYTH, Cat. 685—HORSF., Cat. 695—C. *fortirostris*, LAFRESN.—*Maltam-pho*, Lepch.

#### THE SPOTTED-WINGED GROSBEEK.

*Descr.*—Male, with the entire parts above, including the head and neck, dull slaty black; beneath siskin yellow; the base of the primaries, excepting the first three or four, pure white, forming a conspicuous spot; some of the greater coverts, the shorter primaries, and the secondaries and tertiaries, with an oval yellowish white spot on the outer webs at the tip.

Bill and feet plumbeous; irides brown. Length  $8\frac{1}{2}$  inches; extent 15; wing  $5\frac{1}{4}$ ; tail 3; bill at front  $\frac{7}{8}$ ; tarsus  $\frac{3}{4}$ .

The female is a little smaller, has the upper parts like the male, but there is a yellow supercilium, occasionally some of the same colour on the forehead, crown, and nape, as also on the upper part of the dorsal plumage; the cheeks, too, are yellow; but the upper ear-coverts dark; beneath bright yellow, spotted with black, except on the vent and under tail-coverts; a dark line from the gape, and another from the base of the lower mandible, enclosing the chin, which is unspotted; wings as in the male, but the pale spots larger, especially on the wing-coverts. The young resemble the female, but the lower parts are whitish, as are the feathers of the crown, nape, and interscapular region.

This magnificent Grosbeak has been found both in the North-west and in the South-east Himalayas, but more common in the latter region, and chiefly at considerable elevations. In winter, a few descend to a lower region, in which season I got one or two

pairs near Darjeeling. Hodgson obtained it in Nepal, where he says they belong to the Northern region, whence they wander into the central region, even in summer, in search of ripe stony fruits. According to Captain Hutton this species "comes to Mussooree in flocks, during March and April, and remains as long as it can find plenty of cherry stones to crack, after which it disappears. They have a curious chattering note, and love to sit on the tops of the tallest trees. When at work on a wild cherry-tree they are easily detected by the constant cracking sound of the cherry-stones, which they never break, but open most dexterously at the joining of the valves. The ground beneath the trees is strewed with the opened shells."

The next species is not a typical one, and is placed by Bonaparte under *Hesperiphona*, but it does not range satisfactorily with either. The sexes are alike, and the bill is much less bulged than in the last species, perfectly conic, and with the culmen straight, and it somewhat approximates, according to Mr. Blyth, an African genus, *Pyrenestes* of Swainson.

#### 728. *Mycerobas carnipes*, HODGSON.

*Coccothraustes*, apud HODGSON—GOULD, Birds of Asia, Pt. III. pl. 12—BLYTH, Cat. 686—HORSE., Cat. 696—*Cocc. speculigerus*, BRANDT.

##### THE WHITE-WINGED GROSBEEK.

*Descr.*—Whole head, neck, and breast, sooty brown; wings and tail dusky, with yellowish edgings, and a white speculum on the wings, as in the last, but larger; the back, wing-coverts, and tertiaries with some olive yellow spots and stripes; the lower back and rump greenish yellow; beneath, the abdomen, vent, and under tail-coverts, greenish yellow, the last sometimes dashed with dusky.

Bill and legs fleshy grey; irides brown. Length  $8\frac{1}{2}$  inches; wing  $4\frac{1}{2}$ ; tail  $3\frac{1}{2}$  to nearly 4; bill straight to front  $\frac{1}{2}$ .

This species has hitherto only been procured in Nepal, within our limits; but it is known as an inhabitant of Northern Persia, and parts of Central Asia, and it appears to occur very rarely on the south side of the Himalayas.

Other Grosbeaks are, the Hawfinch of Europe, *Coccothraustes vulgaris*, and a closely allied species or race from Japan; and two other species from China and Japan, *C. melanura*, and *C. personatus*, are now placed under *Ecphona*.

The genus *Pyrenestes*, Swainson, consists of some remarkable Grosbeaks from Africa, which are the only birds of this particular division found out of the temperate portion of the Northern hemisphere.

A peculiar tribe of thick-billed Finches inhabits the Galapago islands, off the West Coast of South America, which may be classed near the Grosbeaks. They constitute the *Geospizinæ* of Bonaparte, and, although some of them, by their enormous bills, approach the Grosbeaks, others have that organ lengthened, more slender, and Starling-like. They live on seeds, and much on roots, which they dig up; and they also eat portions of *Cactus* and other vegetables.

The genus *Cardinalis*, containing some fine scarlet plumaged and crested Grosbeaks of North America, is usually placed in this division, but Blyth considers it more strictly to belong to the Bull-finches.

2nd.—Bull-finches, *Pyrrhulinæ* (in part) of some, *Pyrrhulææ*, Bonap.

The Bull-finches have the bill smaller than in the Grosbeaks, shorter, deeper, and more tumid, with the ridge convex; the wings are more rounded; the tarsi are short, with the lateral toes unequal, and they are tolerably arboreal in their habits. They feed much on the buds of trees, especially in winter. They do not associate in general in large flocks, and they have peculiar and plaintive call-notes. There are very few species known. Bonaparte places them as a sub-division of his *Fringillinæ*, and Gray joins them with the Rose-finches to make a distinct sub-family.

#### Gen. PYRRHULA, Cuvier.

*Char.*—Bill short, as high and broad as long, tumid; the tip slightly compressed and overhanging; wings with 2nd, 3rd, and 4th primaries sub-equal and longest, the 1st and 5th shorter; feet formed for perching, rather broad in the sole; tail truncate, emarginate, rather long.

The plumage of the Bull-finches is soft and puffy, the feathers of open texture, and the colors distinct and massed, in this respect approximating the Grosbeaks. Four species are known from the Himalayas.

**729. *Pyrrhula erythrocephala*, VIGORS.**

P. Z. S. 1831—GOULD, Cent. Him. Birds, pl. 32—Birds of Asia, pt. IV. pl. 12—BLYTH, Cat. 667—HORSE, Cat. 683.

**THE RED-HEADED BULL-FINCH.**

*Descr.*—Male, with the head dull crimson, continued round the sides of the neck, and more or less on the ear-coverts; a narrow band on the forehead, and round the base of the bill black, set off with whitish, passing into the red of the cheeks; back, scapulars, and wing-coverts, dull reddish ashy; rump and upper tail-coverts pure white, the outermost feathers of the latter black; median coverts, wings, and tail, glossy black; the greater coverts ashy, tipped with white; chin whitish; throat, breast, and upper part and sides of abdomen, the same red as the head, but somewhat paler, and tinged with orange; lower part of abdomen pale greyish fawn, passing into white on the lower tail-coverts.

The female has the head and neck dull greenish yellow, the back browner than in the male, and the lower parts pale brown.

Bill black; legs pale fleshy brown; irides light brown. Length about 6 inches; wing  $3\frac{1}{2}$ ; tail  $2\frac{1}{2}$ .

This Bull-finch has much the form of the European bird, but the tail is slightly longer and more forked. It is found throughout the Himalayas, more common in the North-west, somewhat rare in the South-east. I procured it at Darjeeling, but it is rare there, and only a winter visitant; and Mr. Blyth had not previously seen specimens from Sikim. At Mussooree, Hutton states it to be common in winter, feeding on the ground, as well as on berry-bearing bushes, and it perches high on the top of trees.

**730. *Pyrrhula erythaca*, BLYTH.**

J. A. S., 1863.

**THE RED-BREASTED BULL-FINCH.**

*Descr.*—A narrow band round the base of the bill, black, edged with white; the whole head, neck, back, and wing-coverts,

pure ashy grey, paler on the chin and throat, and edged with black where it joins the pure white of the rump; wings and tail glossy black, the greater coverts pale silvery ashy, forming a conspicuous pale wing-bar; beneath, from the breast, lively red, passing to white on the vent and under tail-coverts.

Bill black; feet fleshy—Length about 6 inches; wing  $3\frac{3}{4}$ ; tail 3.

This handsome Bull-finch was found by Lieutenant Beavan on Mount Tonglo in Sikim. The female has not yet been observed.

### 731. *Pyrrhula Nipalensis*, HODGSON.

As. Res. XIX. 155—BLYTH, Cat. 664—HORSE., Cat. 684—GOULD, Birds of Asia, pt. V. pl. 13.

#### THE BROWN BULL-FINCH.

*Descr.*—Above pale ashy brown, smeared with slaty cinereous; rump, upper tail-coverts, wings, and tail, glossy black, the former with a white band; the outer web of the last tertiary crimson; and a pale, broad wing-band formed by the greater-coverts; top of the head slightly marked with dusky brown; and a narrow band of the same round the base of the bill; a small white spot under the eye; lower plumage as above, but paler, and passing to white on the lower abdomen, vent, and under tail-coverts.

Bill greenish horny, with a black tip; legs fleshy brown; irides brown. Length  $6\frac{1}{4}$  inches; extent  $10\frac{1}{2}$ ; wing  $3\frac{3}{4}$ ; tail  $3\frac{1}{2}$ ; the middle feather  $\frac{3}{4}$  inch shorter.

The female resembles the male, except in being a trifle smaller, and the small tertiary is dull saffron-yellow instead of red.

This plain-colored Bull-finch differs from the typical species by its firmer plumage, longer and more forked tail, the feathers of which are slightly truncated. It has been procured only in the South-east Himalayas, in Nepal, and Sikim, where it is not very rare in winter, in summer seeking the higher elevations.

### 732. *Pyrrhula aurantiaca*, GOULD.

P. Z. S. 1857—ADAMS, Birds of Cashmere—GOULD, Birds of Asia, pt. X. pl. 2.

## THE ORANGE BULL-FINCH.

*Descr.*—Male, face, wings, and tail, deep purplish black; rump, upper and under tail-coverts white; the rest of the plumage rich reddish orange; apical half of the innermost of the greater wing-coverts also orange; the outer ones slightly tipped with buffy white.

Bill black; feet fleshy; irides dark brown. Length  $5\frac{1}{2}$  inches; wing  $3\frac{1}{4}$ ; tail  $2\frac{3}{4}$ ; tarsus  $\frac{5}{8}$ .

The female has a circle round the bill black; head and neck ash-colour; back ashy, tinged with orange red; the lower parts as in the male, but less brilliantly colored.

This Bull-finch was found by Dr. Adams in Cashmere, in the lesser ranges of hills, in thick bushy places, in small societies. Its call is like the chirrup of the Green-finch.

There are two Bull-finches in Europe, differing only in size, *P. vulgaris*, and *P. coccinea*. The former, which is the smaller race, is the only one found in Britain. A nearly allied species occurs in Japan, *P. orientalis*, Temm. and Schlegel. Bull-finches in Europe are taught to whistle whole airs, and fetch a considerable price. These piping Bull-finches, as they are called, are taught by a flute or a bird-organ. Only a few appear to possess a sufficiently fine ear to whistle perfectly in tune.

The following bird is as uniquely coloured in this sub-family, as the crested Bunting is in its own group.

Gen. PYRRHOPLECTES, Hodgson.

Syn. *Pyrrhuloides*, Blyth.

*Char.* Bill bulged as in *Pyrrhula*, but not so short nor so broad; tip of upper mandible slightly overhanging; lower mandible very thick; wings moderate, 2nd, 3rd, and 4th primaries sub-equal and longest; tail even, or very slightly divaricate; legs more slender than in *Pyrrhula*, and more suited for the ground; claws not much curved.

This genus, which was characterized almost at the same time by Hodgson and Blyth, consists but of one species, a remarkably colored and very handsome bird. "Its bill," says Blyth, as

viewed from above, is that of a *Pyrrhula*, whilst viewed laterally, it is like that of a stout *Emberiza*. It appears to lead through *Pyrrhula striolata*, Rüpp., to *Serinus*, and thence to *Chrysomitris*."

### 733. *Pyrrhoptes epauletta*, HODGSON.

*Pyrrhula*, apud HODGSON, As. Res. XIX. 156—HORSF., Cat. 685—*Pyrrhuloides*, apud BLYTH, J. A. S., XIII. 951 and XXIV. 257—*Lho samprek-pho*, Lepch.

#### THE GOLD-HEADED BLACK BULL-FINCH.

*Descr.*—Male, with the top of the head and occiput bright golden orange; the rest of the body brownish black, except a tuft of golden yellow feathers on the axillaries, and the inner webs of the uppermost tertiaries are partially white.

The female is reddish brown, with the forehead and neck grey, and the coronal patch, with the ear coverts, dull greenish saffron; axillaries as in the male; primaries and tail dusky, with the white on the tertiaries, as in the male.

Bill dusky horny; legs brown; irides brown. Length  $5\frac{3}{4}$  inches; wing 3; tail  $2\frac{1}{4}$ ; bill at front  $\frac{7}{16}$ ; tarsus  $\frac{11}{16}$ .

This remarkably colored Bull-finch has only been found in Nepal and Sikim, and is very rare. I got one pair near Darjeeling in the winter. Hodgson says, "inhabits the Northern and Central regions of Nepal, shy, adhering to the forests."

#### 3rd.—Cross-bills—(*Loxiinae* of some.)

These are a very remarkable group of Finches, somewhat allied to the Bull-finches, with the colors of the Rose-finches, but well distinguished from both by the peculiar structure of their bill. They are stout birds with large heads and strong bills, with the mandibles crossed and overlapping, and they are generally distributed over the northern parts of both Continents, one species only having been found in the Himalayas. Bonaparte, as before mentioned, does not separate them from the Rose-finches.

#### Gen. LOXIA, Linn. (restricted.)

*Char.*—Bill somewhat lengthened, strong, compressed towards the tip; the culmen keeled strongly, hooked at the tip, and both

mandibles produced, so that the tips cross each other; wings moderately long, the 1st and 2nd quills sub-equal and longest; tail short, forked; feet fitted for perching, the lateral toes unequal, the hind toe long, and all the claws well curved. The peculiar structure of the bill of these Finches enables them to extract the seeds from the hard woody cones of Pines, and the ease and rapidity with which they do this, is said to be very wonderful. They are stated also to eat apples and other fruit. They nidificate high up on Pine trees, making a nest of twigs and grass, lined with hair. They somewhat approach the Parrots in the form of their bill, and also in the way in which they climb by the aid of that organ. Pallas, who remarked this, states that were it not for the form of their feet, they could not be distinguished from Parrots.

#### 734. *Loxia Himalayana*, HODGSON.

J. A. S. XIII. 952—BLYTH, Cat. 671--HORSE., Cat. 680—Bonap. and Schlegel, Mon. Lox. pl. 7.—GOULD, Birds of Asia, pt. XII. pl. 13.

##### THE HIMALAYAN CROSS-BILL.

*Descr.*—The greater part of the head and neck, and the whole body beneath, red, of a hue between roseate and blood-red, and more or less tinged with dusky brown; the rest of the head, neck, back, wings, and tail, ashy brown, smeared and edged with red.

The female is brown above, the rump tinged with yellow; pale brownish beneath, tinged on the breast and abdomen with olive yellow.

Length  $5\frac{1}{4}$  inches; wing  $3\frac{1}{4}$ ; tail  $2\frac{1}{4}$ ; bill at front  $\frac{1}{2}$ .

The Himalayan Cross-bill is only found in the higher regions of the Himalayas, not far from the snows; and even there, says Hodgson, it is rare. It is much smaller than the European species, with the colors somewhat deeper. We have no record of its habitat elsewhere, but it will probably be found in Tibet, and other regions of Central Asia. It does not appear to have been observed in the N. W. Himalayas.

The European species of Cross-bill are *L. curvirostra*, the common Cross-bill; *L. leucoptera*, the white winged Cross-bill; and *L. pityopsittacus*, or the Parrot C., all of which have been

observed in Britain; and a fourth species from Eastern Europe is recorded by Bonaparte. Another species, is common in North America, *L. Americana*.

A remarkable bird, *Psittirostra psittacea*, from the Sandwich Islands, is placed next *Loxia* by some systematists. It is green, with the head and neck yellow, thus still more approximating some of the Parrots; and Bonaparte latterly placed near this bird the *Fringilla coccinea*, of the Sandwich Isles, the type of the genus *Hypolorias*, Lichtenst.

The next two genera might either be placed with the Cross-bills, or the Rose-finches. Bonaparte puts them next the Cross-bills; Gray with the Rose-finches. The coloration of the males is common to both groups, whilst that of the females more approximates the tints of the Cross-bills by its yellow tone. The first noticed has more brilliant red plumage than any of the group.

#### Gen. HÆMATOSPIZA, Blyth.

*Char.*—Bill large, longer than deep, moderately bulged; the upper mandible distinctly curved and over-hanging, with a slight subterminal notch; wings with the 2nd, 3rd, and 4th primaries sub-equal and longest, the 5th slightly shorter, and the 1st shorter than the 5th; tail nearly even.

This form, says the founder of the genus, leads from the Grosbeaks to the Bull-finches; its coloring is distinctive and remarkable. Only one species is known.

#### 735. *Hæmatospiza sipahi*, HODGSON.

Corythus, apud HODGSON, As. Res. XIX. 151—HORSE, Cat. 681—II. boetonensis, BLYTH, Cat. 663—GOULD, Birds of Asia, pt. IV. pl. 12—*Phanying-pho biu*, Lepch.—*Labbia ma-phoo*, Bhot.

#### THE SCARLET GROSBEAK.

*Descr.*—Male, brilliant scarlet, with the wings and tail dusky brown, more or less scarlet edged; the tibial feathers dark brown, and the lower tail-coverts dashed with dusky. The female is dusky brown; the feathers broadly margined with dull greenish-yellow; rump bright yellow; beneath pale olivaceous yellow,

with dusky crescentic marks, becoming more albescent on the lower abdomen.

Bill yellow; legs brown; irides hazel brown. Length  $7\frac{1}{2}$  inches; extent  $12\frac{1}{4}$ ; wing  $4\frac{1}{8}$ ; tail  $2\frac{1}{2}$ ; bill at front  $\frac{1}{2}$ ; tarsus  $\frac{3}{4}$ .

This magnificent bird has chiefly been found in the S. E. Himalayas, in Nepal and Sikim; and is unknown in the North-west. It is by no means rare about Darjeeling, and haunts elevations from 5,000 to 10,000 feet, according to the season. I have generally seen it in pairs. It frequents both forest and bushy-ground, feeds on fruits and seeds of various kinds, and has a loud whistling note.

Pr. Bonaparte and Schlegel, as quoted by Gould, state that this bird sings very agreeably, and plays a great part in the mythology of the Hindoos. This of course is quite erroneous, and the common *Tuti* of India, *Carpodacus erythrinus*, was probably intended.

Bonaparte places next this bird a remarkable species from Japan, *Chaunoproctus papa*, which appears to be coloured somewhat like *Pyrrhospiza punicea*.

#### Gen. PROPYRRHULA, Hodgson.

Syn. *Spermopipes*, Caban.

Char.—Bill as in *Pyrrhula*, but somewhat longer, and the tip of the upper mandible less distinctly prolonged and overhanging; wings shorter and more rounded; plumage as in *Ioxia* or *Strobilophaga*.

This form, says Blyth, can only be arranged satisfactorily as a separate division, especially intermediate to *Pyrrhula* and *Carpodacus*. As previously observed, by the coloration of the female, it ranks very naturally in the present group. Bonaparte places it with *Corythus*, the type of the European Pine Grosbeak, *C. enucleator*, L., but states that it approximates the *Carpodaci*. Blyth first applied Hodgson's Manuscript generic name to this species, which Hodgson afterwards gave to another bird, the *Pyrrhospiza punicea*, Bl., (vide p. 406).

### 736. *Propyrrhula subhemachala*, HODGSON.

*Corythus*, apud HODGSON, As. Res., XIX. 152—BLYTH, Cat. 668—HORSF., Cat. 682.

#### THE RED-HEADED ROSE-FINCH.

*Descr.*—Male, the forehead and supercilia, cheeks, and more or less of the throat and breast, fine roseate, brightening to crimson in the breeding season; crown, back, and wings, olivaceous brown, margined with the same, more or less bright, and often mingled with dull greenish orange, both purer on the rump and upper tail-coverts; primaries and tail hair-brown, margined with red or orange; lower parts, below the breast, dull brownish grey, tinged with olivaceous on the flanks.

The female has the forehead, and part of throat and breast, bright yellow; the rest of the head, the neck, and the lower plumage plumbeous grey, tinged with greenish, paler and albescent on the vent and under tail-coverts; upper plumage dusky greenish; wings and tail dusky brown, with yellow edges to the outer webs, slight upon the tail-feathers.

Bill fleshy brown; legs pale brown; irides hazel brown. Length about 8 inches; wing  $3\frac{3}{4}$  to nearly 4; tail 3.

In winter the rosy hue is more or less wanting, or much mixed with greenish dusky. Young males have little red, except on the forehead and throat.

This fine Rose-finch has only been procured in the S. E. Himalayas, in Nepal and Sikim, during winter. I obtained it near Darjeeling, frequenting the more open parts of the woods in small parties. It has not hitherto been sent from the N. W. Himalayas.

The Pine Grosbeak is found in the northern portion of both Continents, and is quite intermediate in its colours and structure to the Cross-bills and the Rose-finches.

#### 4th. The Rose-finches.

These comprise a number of Finches, varying in the form of the bill, but all agreeing in the males being more or less rosy

red, and the females dusky olive, with darker streaks, in some more or less mixed with yellow.

Gen. CARPODACUS, Kaup.

Syn *Eruthrina*, Brehm.—*Hæmorrhous*, Swains.—*Pyrrhulina*, Hodg.

*Char.*—Bill somewhat as in *Pyrrhula*, but longer, distinctly tumid and compressed at the tip; commissure sinuated, or with a notch near its base; wings, with the first three primaries sub-equal and longest; tail distinctly furcate; feet robust; claws well curved.

The members of this genus, says Blyth, have the bill midway between the true Bull-finches and the Linnets. The males are more or less tinged with roseate, becoming crimson in the breeding season, and the females are brown streaked, without any yellow. There are several species in Northern Europe, Asia, and America, and one of this genus is the only Fringilline form that extends its migrations far into the tropical regions of India. Another inhabits Northern Africa. They are distinguished from *Propasser* by a brighter tone of red, and in general a thicker bill.

737. *Carpodacus rubicilla*, GULDENSTADT.

*Loxia*, apud GULDENSTADT—GOULD, Birds of Asia, pt. IV. pl. 13—HORSF., Cat. 687—*Cocc. caucasicus*, PALLAS.

THE CAUCASIAN ROSE-FINCH.

*Descr.*—Male, with the crown of the head, the nape, back, wing-coverts, scapularies, and upper tail-coverts, of a beautiful pale rosy grey, the rosy tint predominating on the margin of the wing and tail-coverts; forehead, ear-coverts, and throat, shining white, bordered with carmine red; chin, breast, and abdomen, carmine red, with a triangular spot of shining white at the tip of each feather, giving it a spangled appearance; under tail-coverts pale carmine red; rump carmine red; primaries, secondaries, and tail, brownish black, narrowly edged with reddish.

The female is pale brown above, still lighter beneath: the feathers of both upper and under-surface streaked down the centre with

dark brown; primaries and secondaries brown, edged with pale brown.

Bill with the upper mandible dark brown, lower one fleshy horn colour; feet dark brown. Length about  $8\frac{1}{2}$  inches; wing  $4\frac{3}{4}$ ; tail 4; tarsus 1.

Latham states that this fine species chiefly occurs in the colder parts of the Caucasian Mountains, feeding principally on the berries of the Sea Buckthorn, *Hippophae rhamnoides*; that it is frequently seen in large flocks, and that its note is not unlike that of a Bull-finch. It has only been obtained, in India, in the far N. W. Himalayas, Mr. Blyth having received one from the neighbourhood of Pind Dadun-khan, and it has also been found in Cashmere. It varies much in the brightness of its plumage, according to the season. It is probably this species which Adams alludes to in his Birds of Cashmere, No. 68, as being like *Carp. erythrinus*, but larger, and of a brighter red, and only seen in flocks, high up near the snow.

### 738. *Carpodacus erythrinus*, PALLAS.

*Loxia*, apud PALLAS, Zoog. Ross. As. pl. 36—BLYTH, Cat. 658—HORSF., Cat. 686—GOULD, Birds of Europe, pl. 206—*Haemorrhous roseus*, apud JERDON, Cat. 195—*C. roseus*, apud ADAMS, Birds of Cashmere, No. 67—*L. totta*, GMELIN—*Pyrrhulix roseata*, HODGSON—*Tuti*, H.—*Amonga tuti*, in Nepal—*Chota tuti* in Sylhet—*Phulin-pho*, Lepch.—*Yedru-pichike*, or *Yedru-jinowayji*, Tel.

#### THE COMMON ROSE-FINCH.

*Descr.*—Male, in winter plumage, has the head, throat, breast, moustachial stripe, rump, and flanks of the abdomen, roseate color, deepest upon the crown, throat, and breast, and paling on the flanks; upper plumage generally brown, more or less ruddy, brightening towards the rump and on the upper tail-coverts; the wing-coverts tipped with ruddy brown, forming two pale bars on the wings; tertiaries margined with pale brown; quills and tail-feathers with ruddy edgings. In summer the crown, throat, breast, and rump become brilliant crimson. The female is pale

olive brown with dark streaks, the tips of the greater and lesser wing-coverts whitish, forming two conspicuous bands on the wings; below paler brown, albescent on the throat, the middle of the belly, and the under tail-coverts; and darker and somewhat streaked on the breast and flanks.

Bill yellowish brown; feet horny brown; irides light brown. Length  $5\frac{1}{2}$  inches; wing  $3\frac{1}{4}$ ; tail  $2\frac{1}{4}$ .

The Rose-finch is found as a cold weather visitant throughout the greater part of India, more rare towards the South, common in Central and Northern India, and in the Himalayas, chiefly however at the foot of the hills and in the valleys; and it extends into Assam and Arracan. Out of India it is found over great part of Central and Northern Asia and Europe. It visits the plains during October, and leaves in April. In March, many are taken in fine breeding livery. In the extreme south I have chiefly seen it in bamboo jungle, feeding on the seeds of bamboos on several occasions, and so much is this its habit that the Telugu name signifies 'Bamboo sparrow.' In other parts of the country it frequents alike groves, gardens, and jungles, feeding on various seeds and grain; also not unfrequently on flower buds and young leaves. Adams states that in Cashmere it feeds much on the seeds of a cultivated vetch. Now and then it is seen in large flocks, but in general it associates in small parties. It breeds in Northern Asia. It is frequently caught and caged, and has rather a pleasing song. Blyth says, "The *Tuti* has a feeble twittering song, but soft and pleasing, being intermediate to that of the Gold-finch, and that of the small Red-pole Linnet; the call-note much resembling that of a Canary-bird."

Perhaps the North American Red-finches, *Fr. purpurea*, Gm., and *Fr. frontalis*, Say, with three or four lately discriminated species from the same Continent, ought to be classed in this genus, rather than in *Propasser*.

Gen. PROPASSER, Hodgson.

Syn. *Phænicospiza*, Blyth.

Char.—Bill more elongated, Finch-like, or much as in the Sparrows, scarcely bulged, the culmen and gonys slightly curved,

and the tip faintly notched: wings rather short; tail slightly forked.

The birds of this genus differ from those of the preceding by the more lengthened and less tumid bills, and by the general tone of the plumage, which is more of a vinous or claret colour than in *Carpodacus*. In some, the first four primaries are about equal; in one species the 3rd and 4th are the longest, and the 1st and 2nd successively shorter. Most of the known species are from the Himalayas, and probably Central Asia.

### 739. *Propasser rodopeplus*, VIGORS.

*Fringilla*, apud VIGORS, P. Z. S. 1831—GOULD, Cent. Him. Birds, pl. 31, f. 1—BLYTH, Cat. 658—HORSEF., Cat. 689—*Gulabikuti*, in Nepal.

#### THE SPOTTED-WINGED ROSE-FINCH.

*Descr.*—Male, above dull crimson or ruddy brown, with dusky or blackish median stripes, more brown on the back; superciliary stripe pale glistening roscate; rump, and the tips of the wing-coverts and tertiaries, vinaceous rosy pink; the throat, breast, and body beneath, dull vinous rosy.

The female is deep brown above, with paler lateral margins; beneath light yellowish-brown, with dark central lines; a broad pale supercilium, and another pale line from the lower mandible.

Bill horny brown; legs pale brown; irides brown. Length  $6\frac{3}{4}$  inches; wing  $3\frac{1}{4}$ ; tail  $2\frac{3}{4}$ . Wings somewhat rounded, the 1st being a good deal shorter, and the 2nd something shorter than the 3rd.

This Rose-finch appears to be most abundant about Nepal and the Central part of the Himalayas, being found sparingly at Mussooree, according to Hutton, and it has not been procured in Sikim. Hutton states "that it likes the brushwood best, where it often keeps company with various Accentors."

### 740. *Propasser thura*, BONAP.

BONAPARTE and SCHLEGEL, Monog. Lox. pl. 23—*P. rodopeplus* (in part), HODGSON—MOORE, P. Z. S. 1855—HORSEF., Cat. 690.

## THE WHITE-BROWED ROSE-FINCH.

*Descr.*—Very similar to *rodopeplus*; differs in the male being hair brown above, centred with blackish, and only the lesser range of wing-coverts being tipped with pale crimson; the end of the superciliary streak and the centre of the belly are pure white. The female differs from the female of *rodopeplus* in being paler above, with paler centres to the feathers, and in the colour of the lower parts being more uniform. It is a little smaller too than the last species, and its bill is smaller and more pyrrhuline in its form.

This species was sent from Nepal by Mr. Hodgson, along with *rodopeplus*, and its geographic range is not accurately known.

741. *Propasser rhodochlamys*, BRANDT.

Pyrrhula, apud BRANDT.—GOULD, Birds of Asia, pt. IV., pl. 14  
—C. sophia, BON. and SCHLEG.—C. grandis, BLYTH, Cat. 659.

## THE RED-MANTLED ROSE-FINCH.

*Descr.*—Male, the feathers of the supercilium, the cheeks and throat, shining rosy white; upper surface greyish brown, strongly tinged with rosy red; the crown of the head washed with purplish rose colour, and a line of dark brown down the centre of each feather; under surface and rump of a deep rose red; quills and tail-feathers brownish black, margined with greyish red; under wing-coverts rosy white.

The female is brown, somewhat brighter on the lower surface and with a streak of brownish-black down each feather; the wings and tail brown with paler margins, especially on the greater and middle coverts of the wings.

Bill brownish-grey above, yellowish beneath; feet brownish yellow. Length of a female 7 inches; wing  $3\frac{1}{2}$ ; tail  $2\frac{3}{4}$ . The male is somewhat larger.

This species has been obtained in the Tyne range of mountains between Simla and Mussooree, and in the Pubher valley, near the snow, on the Simla side, by Hutton; and it also inhabits Tibet and the Altai mountains. It resembles *Propasser rhodochrous* in its colours.

742. *Propasser rhodochrous*, VIGORS.

*Fringilla*, apud VIGORS, P. Z. S. 1831—GOULD, Cent. Him. Birds, pl. 31, f. 2—BLYTH Cat. 661—HORSEF., Cat. 691—*Gulabi tuti* in Nepal—*Cheerya* by the people of the plains below Nepal.

## THE PINK-BROWED ROSE-FINCH.

*Descr.*—Male, above brown, edged with reddish; head and nape dusky or vinous rosy; forehead, superciliary stripe, and rump, pale rosy; wings unspotted; the wing-coverts reddish brown; beneath dull vinous rosy.

The female is brown above, the feathers edged with pale olive brown; beneath pale rufous or rufescent, with brown streaks. Compared with the female of *rodopeplus*, she is altogether paler, and the supercilia are therefore less distinct and contrasting.

Bill pale brown. Length about 6 inches; wing  $2\frac{8}{10}$ ; tail  $2\frac{3}{8}$ . The bill is less pyrrhuline, and more linnet-like than in *rodopeplus*.

This species is chiefly a denizen of the more Western Himalayas; it was procured by Hodgson in Nepal, but has not been observed in Sikim. Hutton states, "that it is common at Mussooree, flying in small flocks, often mixed up with Bull-finches and Siskins. They alight on the ground in search of seeds; and if disturbed, either fly off with a wheeling flight that brings them back to the same spot, or they rise up into a tall tree and cluster on its topmost branches." If Royle is correct, it occurs on the plains near Saharunpoor, but never far from the foot of the Mountains.

743. *Propasser pulcherrimus*, HODGSON.

GRAY, Zool. Misc. 1844—MOORE, P. Z. S. 1855—HORSEF., Cat. 692.

## THE BEAUTIFUL ROSE-FINCH.

*Descr.*—Similar to *rhodochrous*; it differs in having the forehead, superciliary streak, cheeks, throat, and under parts, with

the rump, silvery crimson; being almost silvery white about the head; the upper parts, with the crown, are dark brown, with pale crimson edges to the feathers. The female differs from the female of *rhodochrous* in having the under parts dusky white, instead of rufescent, and in the colours above being less rufescent. The size is the same as that of *rhodochrous*, but the wing is somewhat longer.

This species appears to have much the same range as the last, both having been sent from Kumaon and Nepal.

#### 744. *Propasser frontalis*, BLYTH.

J. A. S. 1863.

##### THE SIKIM ROSE-FINCH.

*Descr.*—Broad frontal band, and eyebrow silvery rose pink; lores, and a narrow band round the base of the bill beneath, crimson; top of the head, nape, and cheeks, plain dark brown; back brown with broad central dashes; wings brown, with the median coverts tipped with pale rosy, forming a prominent band, and the greater coverts and tertiaries narrowly edged with rosy white; tail brown; rump and upper tail-coverts pale vinaceous rosy; beneath, the chin, throat, neck, and breast, rosy with silvery white shafts, and the rest of the plumage of a dull rosy tint.

The female has the whole upper plumage yellowish brown, with black dashes, two pale, very narrow wing-bands; quills and tail dark brown; forehead, eyebrow, lores, and face white, with black stripes; chin, throat, and breast rufous, with black stripes; belly, vent, and under tail-coverts white, with dark stripes.

Bill horny brown; legs pale brown. Length  $6\frac{1}{2}$  inches; wing  $3\frac{1}{4}$ ; tail 3.

The bill is tolerably thick, scarcely elongated, and somewhat tumid. The 3rd and 4th quills are the longest, 1st and 2nd successively shorter.

This handsome species has lately been discovered in Sikim, by Lt. Beavan, at a considerable elevation, on Mount Tonglo I believe. It is very near to *P. pulcherrimus* and *P. thura*, but appears to differ from both.

745. **Propasser Murrayi**, BLYTH.

J. A. S. 1863.

## MURRAY'S ROSE-FINCH.

*Descr.*—A female only of this species is known. Above earthy brown, the feathers of the head edged with white, and a white eye-brow from the eye to the nape; back very faintly pale edged; wings with two pale bands, and the tips of the secondaries also pale; primaries and tail feathers very narrowly edged with pale; beneath, the chin and throat are albescent, with a few ill-defined dusky spots on the chin, and becoming fulvescent on the throat; the rest of the lower parts pale earthy brown, passing to rusty on the middle of the belly, vent and under tail-coverts.

Bill horny brown; legs pale brown. Length 6 inches; wing 3; tail  $2\frac{1}{2}$ .

This bird was said to have been procured somewhere in the Gwalior territories, but if so, must have been a straggler from the Himalayas. It appears to differ from the females of the other known species, sufficiently to warrant its being considered distinct.

I am inclined to think that the *Pyrgita?* *concolor* of my Catalogue No. 178, might have belonged to the present group, and in its coloration it much resembles the females of *P. githaginea* and *P. sinaitica*; but, as it was founded on a single specimen, shot in the Deccan along with a lot of the so-called Ortolan, I shall not record it separately. It was of a nearly uniform light brown colour, palest beneath, and albescent on the chin and vent. Length 6 inches; wing  $3\frac{3}{4}$ ; tail  $2\frac{1}{4}$ .

Other species of this genus are *P. rosea*, Pallas, from Northern Asia, occasionally visiting Europe; *P. sinaitica*, Licht. (*synoica*, Temm.) from Arabia and Eastern Africa; *P. githaginea*, Licht., from Northern Africa and the South of Europe. The latter is placed by Bonaparte in his genus *Erythrospiza*, but its colors appear to be quite those of this group. Two other species placed under the same genus, viz., *Fr. obsoleta*, and *F. rhodoptera*, of Lichtenstein, from Central and Western Asia, perhaps belong rather to *Carpodacus*. Whether the remarkable, long-tailed, small Red-finches of North-eastern Asia, forming the genus *Uragus*,

should be placed with these Rose-finches, as Bonaparte has done, or elsewhere, I have no means of deciding.

The next two birds have the bill more Finch-like, and may be said to grade into the true Finches.

Gen. PROCARDUELIS, Hodgson.

Syn. *Pyrrha*, Caban.

*Char.*—Bill longer and more slender than in *Propasser*, but less acutely pointed and compressed at the tip than in the Gold-finches; wings rather long, with the 2nd, 3rd, and 4th primaries sub-equal, the 1st a little shorter; general form elongated; colours as in *Propasser*, but deeper.

#### 746. *Procarduelis nipalensis*, HODGSON.

J. A. S., XII, 955—As. Res. XIX, 157—BLYTH, Cat. 857—HORSEF., Cat. 749—*Linota saturata*, BLYTH, J. A. S., XI. 192—(the male)—*L. fusca*, BL., (the female)—*Ka-biya*, Lepch.

##### THE DARK ROSE-FINCH.

*Descr.*—Male, above, neck and breast sooty or dusky, strongly tinted with dark sanguineous blossom-red; forehead, a line over the eye to the occiput, chin, throat, breast, and belly, pure blossom red; quills and tail-feathers sooty brown, more or less tinged on the outer margin with the red hue of the upper surface.

Bill brown; irides red brown; legs fleshy brown. Length  $6\frac{1}{2}$ , to 7 inches; extent  $10\frac{1}{2}$ ; wing  $3\frac{3}{4}$ ; tail  $2\frac{3}{4}$ .

The female is olive-brown above; below, from the chin to the breast, dirty yellowish; from breast to tail white; wings and tail dusky brown; wing-coverts and tertiaries externally margined and tipped with dirty yellowish.

This fine Finch is found in Nepal and Sikim. Hodgson says that it inhabits the Central and Northern hills of Nepal. It is common at Darjeeling, in the cold weather only, in moderately large flocks, feeding on the roads sometimes, or among the ferns and brush-wood.

The next bird is a somewhat remarkable form, and is slightly allied, in its coloration, to *Hematozpiza sipahi*, but its more Finch-like bill, and feet fitted for terrene habits, have influenced me in

placing it here as a connecting link between the Rose-finches and the true Finches.

Gen. PYRRHOSPIZA, Hodgson.

*Char.*—Bill conical, elongate, with slightly curved outline both above and below, somewhat compressed, and tapering to the tip as viewed from above; gonys arched; wings long reaching to more than half the length of the tail, which is also moderately long; first four primaries sub-equal, 2nd and 3rd rather the longest; feet adapted for ground habits; toes rather long, with large and arched claws.

#### 747. *Pyrrhospiza punicea*, HODGSON.

J. A. S., XIII., 953—BLYTH, Cat. 656—HORSF., Cat. 694—*Propyrrhula rubeculoides*, HODGS., P. Z. S., 1845.

#### THE LARGE RED-BREASTED FINCH.

*Descr.*—Male, above nearly uniform dusky brown, the feathers margined with paler; forehead and rump, with the cheeks, ear-coverts, and under parts, except the abdominal region, roseate in winter, brightening to rich crimson in the breeding season, and varying to orange saffron; flanks and abdomen colored like the back.

Bill dark horny; feet dusky black. Length  $7\frac{1}{2}$  to 8 inches; wing  $4\frac{1}{2}$  to  $4\frac{3}{4}$ ; tail  $3\frac{1}{8}$ .

The female is devoid of the red, having the forehead, cheeks, fore-neck, and breast, more or less fulvescent, each feather marked with a blackish mesial streak, widening at the tip; belly and lower tail-coverts, dingy brown.

This fine Finch has hitherto only been found in the higher regions of the Himalayas, bordering the Snows. I did not procure it in Sikim. It is probable, however, that this and others of the cold-weather visitants to Nepal and other parts of the Himalayas, are to be met with in the interior of Sikim, towards the Snows, my researches having been limited to British Sikim.

#### 5th. True Finches.

The next bird, though somewhat allied to the preceding, is sufficiently marked to warrant its generic separation. It has been

classed as a true *Fringilla*, and as a *Carduelis*. Its colors approximate it to the Rose-finches as well as to the Gold-finches; and Blyth indeed notes that "it is a true *Fringilla*, allied to the Gold-finches, with affinities for the Red-finches."

Gen. *CALLACANTHIS*, Reichen.

Bill Finch-like, *i. e.* as in *Fringilla*, but somewhat more robust and broader, much shorter and stouter than in *Carduelis*; otherwise as in *Fringilla*, but with a peculiar coloration.

Bonaparte who adopts this genus, says "scarcely a *Fringilla*, by no means a *Carduelis*."

748. *Callacanthis Burtoni*, GOULD.

*Carduelis*, apud GOULD, P. Z. S. 1837, 90—GOULD, Birds of Asia, pt. I., pl. 15—*Fringilla erythrophrys*, BLYTH, J. A. S. XV. 38—BLYTH, Cat. p. 337. (App., No. 6).

THE RED-BROWED FINCH.

*Descr.*—The male has the crown, ear-coverts, wings, and tail, brownish black; the forehead, a broad supercilium, chin, and throat, crimson; the upper plumage ruddy brown, deepest on the rump and upper tail-coverts; wings marked with white, chiefly on the primary and greater coverts, and on the secondary quills; the outer tail-feathers mostly white towards the tip; all the others except the middle pair, white tipped. In summer the whole under parts appear to become more or less crimson.

Bill yellow; legs light brown. Length 7 inches; wing  $3\frac{1}{2}$ ; tail  $2\frac{1}{2}$ .

The female is plain brown above, darker on the crown, with a bright saffron eye streak, and the forehead ochreous; the back is yellowish brown, and there is less white on the wings than in the male; beneath pale brown, tinged with fulvous.

This remarkable Finch has only hitherto been found in the North-west Himalayas, chiefly in the mountains beyond Simla.

Gen. *CARDUELIS*.

*Char.*—Bill lengthened, conic, compressed; the tip attenuated and acute; the gonyes straight, ascending; the commissure slightly sinuated; wing lengthened, pointed; the first three quills nearly

equal; tail moderate, slightly forked; feet short; hind claw rather long.

The Gold-finches are a very limited group of small birds, distinguished by a bright and variegated coloration; some red about the head and a golden yellow bar on the wings. They sing well, make remarkably neat nests, and the eggs are pale bluish-white, spotted with purple and brown.

#### 749. *Carduelis caniceps*, VIGORS.

P. Z. S. 1831—GOULD, Cent. Him. Birds, pl. 32, f. 1—ROYLE, Ill. of Bot. Himal., pl. 8, f. 2—BLYTH, Cat. 675—HORSF., Cat. 751—*Shira*, H.—*Saira* in Cashmere.

##### THE HIMALAYAN GOLD-FINCH.

*Descr.*—General color above pale whity brown; the rump and upper tail-coverts white; a narrow band on the forehead, continuing round the base of the bill to the chin, scarlet; wings black, with a golden yellow band, and a few white spots on the secondaries; tail black, with the inner webs of the two outer tail-feathers with a large white patch, and the four medial feathers tipped with white; beneath whitish, tinged with brownish ashy on the breast and flanks.

Bill carneau with a dusky tip; legs pale brown; irides brown. Length  $5\frac{1}{2}$  inches; wing  $3\frac{1}{4}$ ; tail  $2\frac{1}{8}$ ; bill at front  $\frac{1}{2}$ .

The Himalayan Gold-finch differs from the European species, in wanting the black and white of the head behind the scarlet band, and in being a somewhat smaller bird. It is only found in the N. W. Himalayas, near Simla and Mussooree, extending into Afghanistan and other parts of Central Asia. Adams says that it is common in Cashmere in winter, and that it visits the ranges next the plains. It is perhaps Pallas' variety of the common Gold-finch, figured pl. 38 of his Zool. As. Ross., found in summer on the Jenisei river. Caged specimens are occasionally brought to Calcutta for sale, and its song is said by Adams to be exactly similar to that of its European congener.

Besides the Himalayan and European Gold-finch, there is only one other species, *C. orientalis*, from Siberia and Northern Asia.

Next the Gold-finches come the Siskins.

Gen. *CHRYSOMITRIS*, Boie.

*Char.*—Bill very short, broadish at the base, compressed at the tip and acute; the culmen flat; tail forked; otherwise as in *Carduelis*.

The Siskins are a small group, nearly allied to the Gold-finches, but with a peculiar style of coloration and a shorter bill. Their form is short, and their plumage is black or brown and yellow. The only Indian species of the genus has been separated by Cabanis as *Hypacanthis*, but apparently without much reason. This genus is remarkable for including in it several species from South America, which, however, are separated by certain Ornithologists.

750 *Chrysomitris spinoides*, VIGORS.

*Carduelis*, apud VIGORS—GOULD, Cent. Him. Birds, pl. 32, f. 2—BLYTH, Cat. 673.—HORSE, Cat. 752—*Saira* in Cashmere—*Phazlipho*, Lepch.

## THE HIMALAYAN SISKIN.

*Descr.*—Male, forehead, occiput, and back of neck yellow; the rest of the body above olivaceous brown; wings dusky black, with some yellowish spots on the wing-coverts, and a pale but bright yellow band on the primaries, tail dusky, the lateral tail-feathers yellow, except on the shaft and tip, this color diminishing in quantity towards the central feathers; beneath yellow, dashed with olivaceous on the sides of the breast and the flanks.

The female has merely the colours less deep, and both the back and abdomen are striated with dusky olive.

Bill fleshy; legs fleshy brown; irides light brown. Length  $5\frac{1}{2}$  inches; extent  $9\frac{1}{2}$ ; wing  $3\frac{1}{2}$ ; tail not quite 2.

This pretty little Siskin is found throughout the Himalayas. It is a somewhat larger and more brightly coloured bird than the European Siskin, and the bill is proportionally much stronger. At Darjeeling it is only a winter visitant, but then, by no means rare. It keeps to the woods, occasionally entering gardens in small parties. Adams says that it is common in the wooded

districts in the North-west, and that its song is very like that of the English Siskin. Hodgson says it is more common in the Central region than in the northern.

Besides the common Siskin of Europe, *C. spinus*, another species from Siberia, *Ch. pistarina*, Eversman, is recorded by Bonaparte.

The South American Siskins are numerous, and one with a red tone of color has been separated by Bonaparte as *Pyrrhomitris*.

The smallest member of this sub-family, perhaps should be placed next the Siskins.

#### Gen. METOPONIA, Bonap.

*Char.*—Bill short, thick, nearly regularly conic, slightly bulging; the culmen very gently curved; gonys almost straight; wings long; tarsus moderate; middle toe long, laterals short.

This unique little Finch in some measure recalls the coloring of the Weaver-birds, and, it represents the Pyrrhuline *Pyrrhoplectes* among the True Finches, as also, says Bonaparte, a remarkable American bird, *Catamblyrhynchus diadema*.

#### 751. *Metoponia pusilla*, PALLAS.

Passer, apud PALLAS, Zool. Ross. As., 2nd vol. pl. —HORSF., Cat. 754—*Fringilla rubrifrons*, HAY, J. A. S. XV. 38—*Serinus aurifrons*, BLYTH, Cat. 681.

#### THE GOLD-HEADED FINCH.

*Descr.*—Forehead and top of head bright golden yellow; occiput, cheeks, throat, and foreneck, black, passing to dusky on the nape and sides of the neck; back dusky, with yellowish lateral margins to the feathers; rump, towards the tail, deep canary yellow; shoulder of wing golden fulvous; margins of quills and tail feathers saffron-yellow; under tail-coverts pale canary yellow; the rest of the lower parts albescent yellow, with dusky central streaks; axillaries pure white; a pale bar on the wing, formed by the tips of the greater coverts, and the outer webs of the secondaries near their base.

The female, or perhaps the young only, has the forehead narrowly reddish, wants the black of the head and throat, and is altogether less brightly colored.

Bill and feet dark. Length  $4\frac{1}{4}$  to 5 inches; wing 3; tail  $2\frac{1}{4}$ .

The Gold-headed Finch has been found occasionally in the N. W. Himalayas, not, it appears, as a regular visitor, for Hutton says, he "observed this bird in 1854-5, at Mussooree, after an interval of many years. It appeared to be always in pairs, and, like our Siskin and Gold-finch, is very fond of alighting upon the tall coarse nettles which abound there." It was found by Speke in Spiti and Ladakh, in summer; and in Affghanistan by Griffith, who observed it "in flocks about cultivation, rather shy; feeds on thistles on which they cling." Adams found it very common in Ladakh, in flocks, with the habits and call note like those of the European Redpole. According to Pallas it is common on the Caucasus, and near the Caspian Sea; and it occurs in Eastern Europe. Pallas' figure is unrecognisable.

Next should come the Linnets and Canary birds. The former comprise a number of small Finches with slender conical bills, which, during the breeding season, acquire more or less a red color on the head and breast, and thus evince an affinity for the Rose-finches. One species, *Linota brevirostris*, Gould, P. Z. S. 1855, has been found in Ladakh, and may occur within our limits.

The Canary birds, *Serinus*, with somewhat thick bills, are chiefly from Africa, and the neighbouring islands; and the Lutinos (as Blyth calls them) of *S. canaria*, are the well known song birds. The Canary bird, as is well known, will inter-breed both with the Gold-finch and Siskin. Some other African Finches are placed in the genera *Alario*, *Auripasser*, *Citrinella* and *Buserinus*. *Crithagra*, a South American group, with somewhat thick bills, and more or less yellow plumage, ought also to be placed along with the Serins.

The true Finches are chiefly Northern birds, two species occurring in the most Northern portion of our province, belonging to different genera.

## Gen. FRINGILLA, Linn. (as restricted.)

*Char.*—Bill forming a perfect and somewhat lengthened cone, both mandibles being of nearly equal thickness, the upper one slightly notched near the tip; commissure about straight; wings lengthened, pointed, with the first four primaries sub-equal, the first rather shorter; tail moderate, forked; legs slender; feet adapted for perching

The common Chaffinch of Britain, *Fr. caelebs*, L., is the type of this form.

752. *Fringilla montifringilla*, LINNÆUS.

GOULD, Birds of Europe, pl 188—BLUTH, Cat 653—HORSF., Cat 746

## THE MOUNTAIN FINCH

*Descr.*—In summer, the male has the head, lores, cheeks, sides of neck, back, and rump, blackish, with pale white edges to the feathers of the rump the shoulders and lesser-coverts rufous, edged with white; secondary coverts also margined with whitish, and a white spot on some of the quills; these and the tail black, edged with brownish yellow; the outer tail-feathers margined at their base with white; beneath, from the chin to the breast, and the flanks, rufous, passing into pale cinereous on the belly. In winter the upper parts are black, the head and back edged with rufous, and the rump pure white; the sides of the head and the nape much tinged with grey. The female differs, in having the head grey, and less rufous on the breast.

Length 6 inches; wing  $3\frac{3}{4}$ ; tail  $2\frac{1}{2}$

This Finch, chiefly an inhabitant of the temperate and northern parts of Europe and Asia, has been occasionally found in the N. W. Himalayas during the cold weather. It was sent from Affghanistan by Griffith, and Blyth has seen specimens from Simla and Cashmere. At Mussooree, Hutton observed it as "a rare winter visitant, though it may be common higher up. I have only seen it in the flocks of *Propasser rhodochrous*."

Besides the well-known Chaffinch of Europe, there are two or three allied species from the north of Africa and adjacent isles.

The Green-finches, *Ligurinus*, Koch, (*Chlorospiza*, Bonap.) include, beside the well known Green-finch of Britain, two or three species common in China and Northern Asia, *Fr. sinica*, and *Fr. kawariba*, Temm., which, by their colours, may be said to connect the Siskins and their allies with the plainer coloured Finches.

Two species of *Montifringilla* are found in Ladakh, and may stray within our limits. The type of the genus is the *M. nivalis*, and it is distinguished from *Fringilla* by its slightly curved and lengthened claws, and the 3d primary is shorter than the first two. It is somewhat related to *Plectrophanes*, which indeed Blyth places here rather than with the Buntings.

*Montifringilla hamatopygia*, Gould, P. Z. S., 1851, and figured in his Birds of Asia, pt. III pl. 15, has the upper plumage light, with the lower back and rump tinged with crimson. Adams found it common on the mountains surrounding the Chimouraree lake, in small flocks, feeding on the seeds of a worm-wood.

*M. Adamsi*, Moore, said to be very like *M. Gebleri*, is ashy above, white below and on the upper tail-coverts, with the wings black, with white-coverts. Adams found it "a native of the barren wastes and mountains of Ladakh, in small flocks, terrestrial in its habits; and, in its call note, and mode of progression on the ground, very similar to the true Larks. The nest is composed of dried grass, and usually placed in dykes and stony places by the way side."

Other species are *M. brunneinucha*, Brandt., from North-eastern Asia; *M. griseinucha*, Br., from North America; *M. arctous*, and *M. Gebleri*, from Northern Asia, probably extending in winter into Central Asia.

The next form is a somewhat anomalous one, though related to the last by the long hind claw.

#### Gen. FRINGILLAUDA, Hodgson.

*Char.*—Bill short, conic, somewhat tumid; commissure gently curved; wings very long, pointed; the first three primaries longest and sub-equal; tarsus somewhat lengthened, slender; feet formed for ground habits; claws slender, hind claw long, slightly curved.

This remarkable genus has some affinities for the Larks, both by its coloration and structure. Blyth latterly referred it to the genus *Leucosticte*, Sw., which is usually considered the same as *Montifringilla*. Bonaparte considers that it has analogies for the Sparrows.

### 753. *Fringillauda nemoricola*, HODGSON.

As. Res. XIX. 158—Fr. longipennis, BONAP. MSS.—BONAP. and SCHLEG., Mon. Lox, pl. 47—HORSF., Cat. 748—*Montifringilla*, apud BLYTH, Cat. 652.

#### THE HIMALAYAN LARK-FINCH.

*Descr.*—Above dusky brown, edged with rufous on the back and scapulars, as in the Larks; quills and tail dusky with pale edgings; the long wing-coverts and tertiaries have a broad edging of pale rufous or whitish; upper tail-coverts blackish with white tips; beneath, the plumage is light earthy grey, pale and albescent on the vent and lower tail-coverts, which are white with dusky centres.

Bill and legs fleshy-brown; irides red brown.

Length  $6\frac{1}{2}$  inches; extent  $11\frac{1}{2}$ ; wing  $3\frac{3}{4}$ ; tail  $2\frac{3}{4}$ .

This curious Lark-like Finch is found throughout the Himalayas, most common towards the North-west. Hodgson states that its habits are very like those of the arboreal Larks; and that it feeds on the skirts of the forests. Adams says that they are seen in large flocks feeding round the margin of the melted snow, and coming to the lower ranges in winter. "Their stomach," says Hodgson, "is a powerful gizzard, and their food consists of kernels and hard seeds, which they digest by means of trituration with gravel." I did not obtain this bird in Sikim, but it is noted in Horsfield's Catalogue as having been procured at Darjeeling by Dr. Pearson.

Those remarkable birds, the Plant-cutters of South America, *Phytotoma*, are placed among the Finches by Gray and others as a separate sub-family, but they perhaps belong to the great group of the Tanagers. They have the margins of the bill serrated.

## Sub-fam. ALAUDINÆ, Larks.

Bill typically longer and more slender than in most *Fringillidæ*. short and thick in many ; wings broad ; tertiaries elongated, pointed ; claws slightly curved ; hind toe and claw typically long ; plumage brown, more or less striated.

The Larks form a very distinct group of small ground-birds, chiefly frequenting open lands, and which rise singing into the air. Their form is robust, their wings are large and very broad, to sustain them in their hovering flight, whilst singing ; and the tertiaries are usually much developed, as in the *Motacillidæ*, and in some other tribes, viz., the Plovers and Snipes, among the Waders. The bill varies much in thickness, from that of a stout, short and Finch-like bill, to a long, slender, and slightly curved beak ; the culmen is generally more or less curved, and the tip blunt, not notched. Their feet are fitted for running on the ground, which they do with alternate steps, not hopping, and they rarely perch on trees. In some, the hind claw is very greatly elongated and nearly straight. The tail is short or moderate, nearly even, or very slightly forked. The plumage is plain colored, usually brown, with medial dark streaks more or less developed ; and the sexes, in most, resemble each other. In a few there is some black on the lower surface.

The young have pale margins to the feathers of the upper surface. Most have the coronal feathers more or less lengthened, and some are crested. They moult once a year, but the general tone of colour alters somewhat according to season, by the abrasion of the feathers ; in some, by a natural shedding of the tips of the feathers. The Larks do not wash, but dust themselves, like the Gallinaceous birds. They feed partly on grains, and much on grasshoppers and insects ; nidificate on the ground, and their eggs are dusky greenish with numerous speckles. Many sing well, and are highly imitative. They are almost confined to the Old World, one form only occurring in North America, and they are very sparingly represented in Malayana and Australia. The Larks may be said to grade to the Finches on the one hand, through *Montifringilla* and *Plectrophanes* ; and, on the other, into the Pipits through *Corydalla*.

The Larks may be sub-divided into the Bush-larks, the true Larks, and the long-billed or Desert-larks.

### 1st. Bush-Larks.

These have the bill stout, with the nostrils not concealed by feathers; the wings more or less rounded, and the tail short. They are squat, heavy looking birds, which prefer more bushy places than the true Larks, and seek concealment.

Gen. *MIRAFRA*, Horsfield.

*Char.*—Bill stout, thick, compressed; the culmen curved and convex; the tip slightly deflected; commissure gently curving; wings rather short, 1st quill short, 2nd shorter than the 3rd, 4th, 5th, and 6th, which are nearly equal; tail very short, even; legs rather long; hind claw moderately long.

The Bush-larks, as they may be called, are distinguished by their rounded wings, short tail, and they have usually more or less ferruginous on their wings. The edges of the mandibles are often worn away about or beyond the middle. They are found in India, including Malayana, Australia, and in Africa.

### 754. *Mirafra assamica*, McLELLAND.

P. Z. S. 1839—BLYTH, Cat. 746—HORSF., Cat. 720—*Ploce-alauda typica*, HODGS.—*Aggia* H.—(*Bhatal* at Muttra?)—*Bhiriri* at Bhagulpore.

### THE BENGAL BUSH-LARK.

*Descr.*—Above ashy brown, with an olive tinge; feathers of the crown, interscapulars, and scapulars, with dusky brown centres; wings and tail dusky, the outer webs of the primaries, and the edges of the secondaries, with the whole under surface, bright ferruginous, fainter beneath; under-parts fulvescent white, whiter on the throat, and spotted on the breast; a light superciliary streak, and the ear-coverts speckled with dusky; outer tail-feather, with the exterior web, ferruginous, the others edged with the same.

Bill dusky above, fleshy whitish beneath; legs pale fleshy brown; irides hazel brown. Length  $5\frac{1}{2}$  to  $5\frac{3}{4}$  inches; extent  $10\frac{1}{2}$ ; wing  $3\frac{1}{4}$ ; tail  $1\frac{3}{4}$ ; bill at front  $\frac{9}{16}$ ; tarsus not quite 1.

This species, which may be at once distinguished from the others by the prevalent ashy hue, has a very thick, stout form; the bill is very thick, and is often much worn away at the edges; the 2nd primary is about equal to the 6th; and the tail is very short.

The Bengal Bush-lark is found throughout all Northern India to the Nerbudda, extending eastwards into Assam. It is stated also to occur in the N. W. Provinces, and in the Deyra Doon, but I think that doubtful. Gray states this to be the same as *Javanica* of Horsfield, but the description of that bird is very different, and more like that of another Indian species, *M. erythroptera*. It is a tolerably familiar bird, feeding in gardens and bushy places, squatting when watched, and then taking a short flight; and it appears to have the propensity to hide itself more than any of the other Indian species. It frequently perches on bushes. Mr. Philipps, as quoted by Horsfield, says that "in the morning and evening, it may be observed, perched on a naked bank, and there pouring out its song, which consists of about eight notes, the first six quickly repeated, the last two slowly;" but, as before stated, I am inclined to doubt if this bird really occurs in the N. W. Provinces, and I imagine that Philipps' remarks apply to another species.

Mr. Blyth says that 'in captivity it is a heavy inactive bird, prone to hide itself from observation, and that its song is pleasing, but of no power.' It appears to be more common in long grass than in bushy ground; and I have only observed it myself in lower Bengal, Dacca, and Sylhet. The nest is described by Tickell as like that of *Ammomanes phenicura*; but one which I obtained in Dacca in June, was distinctly domed, or covered in by turning the stems of grass over, and was very artfully concealed. The eggs are dull greenish white, with numerous grey and brown spots.

### 755. *Mirafrā affinis*, JERDON.

Ill. Ind. Orn. (under *M. erythroptera*, Pl. 38)—2nd Suppl. Cat. 189—BLYTH, Cat. 743—HORSEF., Cat. 718—*Eeli-jitta*, Tel.—*Leepce* in Central India—*Chirchira*, H.

## THE MADRAS BUSH-LARK.

*Descr.*—Plumage above dusky brown, with pale rufous edges to the feathers, and a pale supercilium; ear-coverts pale rufous, tipped with dusky; beneath white, faintly tinged with fulvous, and with the breast marked with large oval brown drops; quills dusky brown, rufous on the outer web of all (except the first two) to near the tip, and with the inner webs rufous at the base, that color obliquely margining them to near the tip; the four central feathers of the tail pale brown, the others darkish brown, the two outermost edged with yellowish white on their outer webs.

Bill dusky, fleshy beneath; legs fleshy; irides brown. Length  $5\frac{1}{2}$  to 6 inches; wing  $3\frac{1}{4}$ ; tail  $1\frac{1}{4}$ ; bill at front  $\frac{7}{10}$ ; tarsus  $\frac{9}{10}$ ; hind toe and claw  $\frac{3}{4}$ . 1st quill above 1 inch long, 2nd about  $\frac{2}{10}$  shorter than the next three; tail very short; bill moderately thick.

This Bush-lark is found on the Malabar Coast, in the Carnatic, in Mysore, and the southern part of the table-land extending North to Goomsoor and Midnapore. Col. Tytler states that it occurs at Barrackpore, but it is certainly very rare in Bengal. It is also found in Ceylon, and I lately found it abundant at Thayet-myo in Upper Burmah.

It is a tolerably familiar bird, entering gardens, and coming close to houses, and does not care so much, as some others of the genus, to conceal itself from observation, for it simply squats, in general, close to the ground, and does not hide itself. It frequently perches on shrubs or even on trees, and takes short flights in the air, descending again with outspread wings. It breeds on the ground, making a loose nest of grass, under the shelter of a bush or tuft of grass, and lays three or four eggs, greenish grey, with spots and stains of brown and dusky. It has a pleasant little song which it utters during its short flights, or occasionally from the ground. Specimens from the Carnatic have a redder tinge than others from Midnapore and Ceylon.

756. *Mirafra erythroptera*, JERDON.

JERDON, Ill. Ind. Orn. pl. 38—BLYTH, Cat. 744—HORSF., Cat. 717—M. Javanica, apud JERDON, Cat. 189.—*Jungli aggia*, H.—*Chinna eeli-jitta*, Tel.

## THE RED-WINGED BUSH-LARK.

*Descr.*—Upper parts streaked, the centres of the feathers being dusky brown, and the edges light fulvous brown, rufescent on the head; coronal feathers lengthened; a whitish eyestreak; ear feathers rufescent-brown; beneath, the throat is pure white, and the rest of the plumage pale fulvescent-whitish; the breast marked with large oval blackish spots; primaries and secondaries ferruginous on both webs, except towards the tip, the dusky portion gradually increasing to the outermost feather; tail blackish, the four middle feathers brown and the outermost only whitish on its outer web.

Bill horny fleshy; feet fleshy; irides dark brown, Length  $5\frac{1}{2}$  inches; wing  $3\frac{2}{10}$ ; tail 2; bill at front  $\frac{4}{10}$ ; tarsus  $\frac{17}{10}$ ; hind claw  $\frac{3}{10}$ ; the bill is thick; the 1st quill  $\frac{7}{8}$  inch long; the 2nd  $\frac{1}{2}$  of an inch shorter than the 3rd, 4th, and 5th, which are about equal.

This species, though very similar to the last, is readily distinguished from it by its smaller size, and by the rufous colour extending over the whole of the primary quills; also by the longer tail.

The Red-winged Bush-lark is found in the table-land of the Deccan, extending south to the edges of the Carnatic, and it is found also in the hilly district of Monghyr, where I lately procured it, but I did not observe it in the intermediate Saugor district, nor at Mhow in Central India. Buch. Hamilton appears to have observed it, for it is figured among his drawings. It is very common about Jaulnah, in low jungle. I saw it once only in the Carnatic, at the foot of the Eastern Ghâts, inland from Nellore; and here I found it within a mile or so of the preceding species, *M. affinis*, but neither encroaching on the other's ground. It never frequents the open plains, nor does it enter gardens and enclosures like the last one, but it keeps almost exclusively to low scattered jungle. It frequently perches on shrubs, whence it occasionally rises a short distance in the air, and descends again with outspread wings, its bright rufous quills glittering in the sun. Like the others, it is found single or in pairs, never congregating; is a shy and wary bird, and, when observed, hides itself behind a bush; and, if followed, soon contrives to conceal itself.

757. *Mirafra cantillans*, JERDON.

J. A. S. XIII. 960, and 2nd. Suppl. Cat. 185—BLYTH, Cat. 745—HORSF., Cat. 719—*Alauda chendoola*, apud JERDON, Cat. 185—*Aghun* or *Aghin*, H.—*Burutta pitta*, Tel., also *Aghin pitta*, Tel.

## THE SINGING BUSH-LARK.

*Descr.*—Above dusky brown, the feathers laterally margined with rufescent brown; wings and their coverts strongly margined with rufous brown; a pale eyestreak; throat and below the ear-coverts white, and the rest of the under parts pale rufescent, darker on the breast, with a few indistinct small breast spots; outer tail feathers nearly all white, the penultimate white on the outer web only.

Bill dusky horny, fleshy beneath; legs fleshy brown; irides dark brown. Length  $5\frac{1}{2}$  inches; extent 10; wing  $2\frac{3}{4}$ ; tail 2; bill at front,  $\frac{7}{16}$ ; 1st primary  $\frac{3}{4}$  inch; the four next equal, or the 2nd and 5th a trifle shorter; bill not very thick; feathers of head elongated.

This species is distinguished from the other Bush-larks by the less amount of rufous on the wings, and this, with its more slender bill, led me, from seeing a caged specimen, to consider it a true Lark. It is very closely allied to *M. Horsfieldi*, Gould, from New South Wales.

The Aggun Bush-lark is generally spread throughout India, but not very common, except in some localities. It is most abundant in the Carnatic, the Northern Circars, and in some parts of Mysore; more rare in the table-land. It is found in Bengal also, but rare; common in Behar, according to Buch. Hamilton, and in Central India, according to Tickell. It chiefly frequents meadows and grass land near cultivation; and it is said to rise higher in the air than other *Mirafrae*; thus, in its colours, habits, haunts, and song, it is more Lark-like than any other *Mirafra*. It is often caged, and much prized by the natives for its pleasant little song, which is very sweet. It also imitates the notes of other birds, though perhaps not so well as the *Chandul*, *Galerida cristata*.

*M. Javanica* is found in Java, and in some of the other islands of Malayana, and appears to be the only species of this group known throughout the Malayan Archipelago. *M. Horsfieldi*, Gould, from Australia, has been already alluded to. There are, perhaps, several of this genus found in Africa, but some that are referred to it by Dr. Smith, appear to belong to the genus *Megalophonus* of Gray (*Brachonyx*, Swains), as well as some of the *Alauda* of Smith. This merely differs from *Mirafra* in having weaker bills.

#### 2nd The True Larks.

These have the nostrils covered with a tuft of incumbent bristle-like feathers. They frequent more open ground than the Bush-larks, and do not endeavour to conceal themselves further than by squatting close to the ground. There are several forms among the true Larks, some of them having their bills nearly as strong as in *Mirafra*.

The first two genera have their plumage nearly uniform, and, scarcely, if at all, striated; their bills are thick and Finch-like, and were it not for their tufted nostrils, they might be ranked with the *Mirafra*; and, indeed, two of them were described under that generic appellation.

#### Gen. AMMOMANES, Cabanis.

*Char.*—Bill short, thick, compressed, arched at culmen, acute at the tip, which is slightly bent over; gonyes ascending; wings long, straight, 1st quill minute, 2nd not so long as the 3rd and 4th, which are the longest, and 5th is nearly equal; tertiaries not elongated beyond the secondaries; tail rather long, slightly emarginate; tarsus and feet moderate; hind claw large. These birds have a remarkable rufous coloration on the back, tail, and under parts; frequent open bare fields and plains, and do not congregate.

#### 758. *Ammomanes phænicura*, FRANKLIN.

*Mirafra*, apud FRANKLIN, P. Z. S. 1831—SYKES, Cat. 100—JERDON, Cat. 188—BLYTH, Cat. 747—HORSF., Cat. 722—*Aggiya*, H.—*Reytal*, H., of some—*Ambali-jori-gadu*. Tel., sometimes *Dowapitta*, i. e. Road bird.

## THE RUFOUS-TAILED FINCH-LARK.

*Descr.*—Plumage above ashy brown with a rufescent tinge; rump, base of tail, the inner webs of the quills, and the tail-feathers, dark rufous or dull ferruginous; the quills and tip of the tail dark brown; lower parts the same ferruginous hue, but paler on the throat and lower tail-coverts, and with a few dusky streaks on the breast; extremity of the lower tail-coverts with a dusky spot.

Bill horny brown above, fleshy at the base beneath; legs fleshy; irides brown. Length  $6\frac{1}{2}$  inches; wing  $4\frac{2}{10}$ ; tail  $2\frac{4}{10}$ ; bill at front  $\frac{9}{10}$ ; tarsus  $\frac{1}{10}$ ; hind toe and claw  $\frac{6}{10}$ .

The Rufous-tailed Lark is found throughout the southern part of India, as far North, at all events, as the Nerbudda on the West, more rare however towards the North. I have seen it North of the Nerbudda, at Mhow and Saugor, but rare; and Tickell appears to have met with it in Central India. It is unknown on the Malabar Coast, in Bengal and in the N. W. Provinces. It is most abundant in the bare table-land of the Deccan, frequenting open plains, ploughed lands, stubble fields, and dry beds of rivers. It frequently ascends suddenly in the air by a few interrupted strokes of its wings, and uttering at the same time a pleasant loud whistling note, something like *too-weet*; it then descends with a sudden fall, changing its note to a low lark-like warbling; when close to the ground, it again repeats this, and so on for several times. It occasionally, though very rarely, perches on low trees or bushes. It feeds on seeds of various kinds, and hard insects; and it makes its nest on the ground, of grass and other light material, generally under the shelter of a clod of earth, or tuft of grass, laying three or four eggs, dirty greenish-white, with numerous small brown spots. It breeds about Jaulnah in February and March. Tickell found it breeding in Central India in June.

759. *Ammomanes lusitanica*, GMELIN.

Alanda, apud GMELIN—*A. deserti*, LICHTEN.—*A. isabellina*, TEMM, Pl. Col. 244. f. 2.—GOULD, Birds of Europe, pl. 163—*Mirafra phœnicuroides*, BLYTH.—HORSE, Cat. 723.

## THE PALE-RUFIOUS FINCH-LARK.

*Descr.*—Affined to *A. phœnicura*, but the general hue is less rufescent; upper parts dull sandy grey-brown; the wing-coverts dark-shafted; the under parts fulvous grey, or isabelline, albescent on the throat, and with a few faint dusky streaks on the breast; tail brown, faintly rufescent at its extreme base, and on the outer web of the outermost feather; broad margins to the inner webs of the primaries and secondaries, with the axillaries, also pale rufescent.

Bill dusky above, yellowish beneath; feet pale yellow-brown. Length about 6 inches; wing 4; tail  $2\frac{3}{4}$ ; tarsus  $\frac{1}{2}$ ; hind claw above  $\frac{5}{16}$ .

This species inhabits Afghanistan and Central Asia, but spreads into Cashmere and the Punjab Salt range, where procured by Mr. Theobald. Griffith states that it frequents rocks and stony places, and that the claws are usually much worn. It is chiefly an inhabitant of Arabia, Northern Africa, and Southern Europe, especially in the south of Spain and Portugal.

It is much paler and less rufous than the last; of which it may be supposed to have the habits. Tristram found its nest in Africa, and describes the eggs as cream colour, blotched with red and brown.

Other species of this Finch-lark are *A. cinnamomea*, Bonap., and *A. pallida* of Ehrenberg. It does not seem that the Indian examples have been accurately compared with *lusitanica*, and Horsfield, in his Catalogue, gives both these last species with a query, as perhaps the same as our bird.

The next genus is chiefly developed in Africa, one species only occurring in India.

## Gen. PYRRHULAUDA, A. Smith.

*Char.*—Bill short, very stout, sides compressed; tip entire; culmen strongly arched; commissure straight; wings moderately long, broad, and well developed, and the tertiaries lengthened; first quill very small, the four next equal and longest; tail moderate, slightly forked; tarsus short; toes small; hind claw slightly lengthened and curved.

This genus of small Larks was formerly classed among the Finches by some naturalists. With much of the structure of the true Larks, it differs remarkably by its short stout bill; and the sexes differ in colour, the males having some large patches of black on their under parts.

### 760. *Pyrrhulauda grisea*, SCOPOLI.

*Alauda*, apud SCOPOLI—BLYTH, Cat. 748—HORSF., Cat. 724—*P. crucigera*, TEMM. Pl. Col. 269-1—SYKES, Cat. 108—JERDON, Cat. 194—*Alauda gingica*, GMEL.—*Diyora*, H. Duri, H. of some, commonly called *Dabhak churi*, i. e., Squab Sparrow—*Jothauli*, of Hindu bird-dealers (Buch. Ham.)—*Chat-bharai*, and *Dhula chata*, Beng.—*Poti-pichike* or *Piyada pichike*, Tel., i. e., Short Sparrow or Ground Sparrow. *Otolan* of some Europeans in the south of India.

#### THE BLACK-BELLIED FINCH-LARK.

*Descr.*—Male, above pale brownish grey, the feathers slightly centred darker, somewhat rufescent on the back; forehead and cheeks whitish; wings and tail brown, the feathers all pale edged; and a deep brown or black band from the base of bill through the eyes, continued to the occiput; chin and throat, sides of neck (extending at right angles behind the ear-coverts, and thus taking the form of a cross, whence Temminck's specific name), breast, and lower parts deep chocolate brown or black; sides of breast, of abdomen, and the flanks, whitish, bordering the dark colour.

Bill pale; legs fleshy; irides dark brown. Length about 5 inches; extent 10; wing 3; tail nearly 2; bill at front not  $\frac{3}{8}$ .

The female wants the black on the lower parts, the plumage is darker, and more rufescent above; the breast faintly streaked with brown, and earthy on the flanks, sides of breast, and neck. She is a smaller bird, measuring about  $4\frac{1}{2}$  inches.

This curious little bird is common throughout all India, from Ceylon to the foot of the Himalayas, except on the Malabar Coast, and it does not ascend the Himalayas at all. It is especially abundant in Western India, in Sindh, and the Punjab, and extends thence to Arabia. It frequents the open plains, and ploughed or fallow fields, and prefers the barest spots,

and especially roads, where it may often be seen dusting itself. It is remarkable for the sudden ascents and descents of its flight, mounting up some height by a few flappings of its wings, and then descending almost perpendicularly, till it nearly reaches the ground, when it again rises as before, and repeats this several times. In general, it takes but a short flight, and, on alighting, squats close to the ground, and will almost allow itself to be ridden over before it rises. It occasionally may be seen seated on the house-top, but I never saw it perch on a tree except on one occasion, when I observed about twelve or fifteen of them perched on a low tree close to cantonment in the hot weather. It makes its nest, from January to March, in the Deccan, later further north, on the ground in a slight hollow, with grass, thread, pieces of cloth, &c., and lays two or three eggs of a light greenish grey tint, with small brown spots, chiefly at the larger end. The young birds are plumaged like the true larks. Sundevall says that he heard it singing in the air like a lark, with expanded wings. This I have not witnessed.

It remains the whole year in India, and, in the cold season, sometimes collects in large flocks, and is then often shot for table as the '*Ortolan*.' Layard says, that it visits Ceylon in flocks, in the cold weather, but does not breed there.

Several species of this genus occur in Africa, and have been figured in Dr. Smith's Zoology of South Africa.

In the next group, the wings are much lengthened, the 1st primary rudimentary, or even wanting in some. To this belongs the *Calandra* Larks, and *Calandrella*, in which the bill is still thick and short, and the plumage plain, not strongly streaked; and, in *Calandra* there is a patch of black on the breast, assimilating them to the preceding birds.

Gen. CALANDRELLA, Kaup.

Syn. *Coryphidea*, BLYTH.

Char.—Bill short, sub-conic, moderately compressed; wings long, straight; first primary minute, the next three primaries about equal; tertiaries elongated; feet small, with shortish toes, and moderately short, but straight hind claw.

This form has more the aspect of a Bunting than a Lark.

761. *Calandrella brachydactyla*, TEMMINCK.

*Alauda*, apud TEMMINCK—HORSE., Cat. 714—*Al. calandrella*, BONELLI—BLYTH, Cat. 736—*Alauda dukhunensis*, SYKES, Cat. 99—JERDON, Cat. 187—*A. arenaria*, STEPHENS—*Emberiza baghaira*, FRANKLIN—*E. olivacea*, TICKELL—*Baghaira*, or *Bagheyri* or *Baghoda*, H.—*Otolan* of Europeans in India.

## THE SHORT-TOED OR SOCIAL LARK.

*Descr.*—Upper parts pale rufescent sandy, streaked with dusky; a stripe over the eye, and the whole under parts, fulvous-white, tinged with earthy brown on the breast, which is spotless in some, in a few slightly spotted; wings dusky brown, with fulvous edgings, broader and deeper-colored on the tertiaries, and on the tips of the coverts, and with a whitish edge to the first developed primary; tail dusky, the penultimate feather having the outer web white-edged, and the outermost feather with the outer web wholly white to near the base, and also some of the inner web. In old or worn plumage the dusky tinge prevails on the back, the breast has some narrow dusky streaks, and a patch of the same appears on each side of the lower part of the foreneck; this is also slightly observable in newly moulted specimens.

Bill whitish horny, dusky on the ridge of upper mandible; legs brownish, darker at the joints; irides dark brown. Length  $6\frac{1}{4}$  inches; wing 4; tail  $2\frac{1}{4}$ ; tarsus  $\frac{9}{10}$ ; hind toe with claw about  $\frac{6}{10}$ .

This species is widely distributed throughout Asia, Europe, and Africa, and has even been once killed in Britain. It is found throughout India, more rare to the extreme south, and it has not been observed in Ceylon, but numerous in the Deccan, and thence northwards to the foot of the Himalayas, but not in the countries to the eastward.

The short-toed Lark appears in India in October and November, in flocks, frequenting the bare grass downs, frequently damp spots near tanks, also grain fields and ploughed land, and it almost always retires to cornfields or grass for shelter during the heat of the day, whence it does not in general issue again till next morning, for they are seldom seen flying about or feeding in the afternoon or evening. It feeds almost entirely on seeds; both

runs and hops on the ground, and has a call note like that of the real Larks. Towards the end of March in the south, April in the north of India, different flocks often unite into vast troops, containing many thousand birds, and quite darkening the air, so close do they keep together, even when flying. Great numbers are netted in some parts of the country, or taken by bird-lime, or shot; for when feeding, they keep close to each other. On one occasion, on the cavalry parade-ground at **Kamptee**, I bagged twelve dozen birds after discharging both barrels, and many wounded birds escaped. They get quite fat about this time, and are really very excellent eating, and they are always called **Ortolan** by Europeans in India. They leave the north of India about the end of April, or beginning of May, and they breed in the steppes of Central Asia, Eastern Russia, and also in Northern Africa, placing their nest on the ground at the edge of a scrub or bush, and laying four to six eggs, usually marked with grey and rufous spots, but sometimes, it is said, unspotted yellow brown.

*Alauda leucoptera*, Pallas, from North Asia, is placed as a *Calandrella* by Bonaparte. The Calandre Larks (*Melanocorypha*, Boie) are large species, with very thick convex bills; wings with the first primary very minute or wanting, and the tertiaries not elongated. The hind claw is straight and of moderate length. They are chiefly inhabitants of Northern and Central Asia, the South and East of Europe, and of Africa. Their habits are said to be that of the last bird, and of *Alauda*, but that they keep aloof from cultivation. One species, *M. torquata*, Blyth, *M. bimaculata* of Menetries, is the Bokhara Lark of some Europeans in the North-west, the *Jull* of the natives. It is a favorite song bird of the Affghans, and is often brought to the Punjab, Cashmere, and even to Calcutta. It is very like *M. calandra*, but is considered generically distinct by Blyth, and named *Calandrina*, having a longer and less robust bill. Its general color is much as in *Cal. brachydactyla*, but with a large blackish patch on each side of the breast above, tending to meet across; beneath whitish, upper parts dusky, with pale sandy edgings. Length about  $7\frac{1}{2}$  inches; wing  $4\frac{1}{2}$ ; tail  $2\frac{1}{4}$ . It is quite possible that this Lark may yet be found in the extreme North-west Provinces, it being

common in Afghanistan. To this genus also belong *Al. tartarica*, Pallas, of North Asia, almost entirely black in summer dress, (occasionally killed in Europe); and *A. mongolica*, Pallas. *Al. clot-bey*, Temminck and Bonaparte, belongs to the same group; but, from its very thick and deeply notched bill, has been separated as *Ramphocoris*, Bonap.

The next form is not unlike the preceding one, but smaller, and less social in its habits.

#### Gen. ALAUDALA, Blyth.

*Char.*—Bill more lengthened and slender than in the preceding genera, but still rather short and thick, and slightly curved; wings moderate, with no rudimentary first primary, and the first three quills longest; tail even; feet very small; hind claw about the length of the toe, nearly straight. Of small size.

This genus may be said to combine the general form (including the bill) of *Alauda*, with the feet and plumage of *Calandrella*. There is only one species known, the smallest of all the Indian Larks.

#### 762. *Alaudala raytal*, BUCH. HAMILTON.

*Alauda*, apud B. HAMILTON—HORSE, Cat. 773—*Cal. raytal*, BLYTH, Cat. 737—*Al. pispoletta*, PALLAS?—*Retal*, H., i. e. Sand-bird.

#### THE INDIAN SAND-LARK.

*Descr.*—General hue of the upper parts light brownish-ashy, with narrow dark centres to the feathers; lower parts white, faintly tinged with fulvous on the breast, where obscurely marked with small spots; wing-coverts and tertiaries margined with pale fulvescent or whitish; the outermost tail-feathers white, except the inner half of the inner web, and the next one is white along the marginal half of its outer web only; a whitish line through the eyes.

Bill pale horny; legs fleshy yellowish; irides brown. Length  $5\frac{1}{4}$  inches; extent 8; wing 3; tail  $1\frac{3}{4}$  to 2; tarsus  $\frac{7}{10}$ ; hind toe and claw not  $\frac{1}{2}$ ; bill at front  $\frac{3}{8}$ ; spread of foot 1.

This little Sand-lark is found on the banks of the Hooghly, Ganges, Indus, and Bramapootra; also, as I lately had the opportunity of observing, abundant on the banks of the Irrawaddy in Upper Burmah. It frequents the sand dunes, the colour of which its own plumage strongly approximates. During the height of the flood of the Irrawaddy, I observed it feeding on the roads and plains in the station at Thayet-myo in small parties. "It occasionally," says Blyth, "ventures short snatches of song, frequently without rising from the ground, and I never saw it mount high."

It is also found in Central Asia, and has been considered the same as *A. pispoletta* of Pallas, which name will stand, if it be identified with that bird. The description applies pretty fairly, but the measurements given do not correspond, the wing being given as  $3.8\frac{1}{2}$  inches, and the tail as 2.3. Blyth has seen specimens from Ladakh.

The birds next noticed comprise a very distinct form, and it is the only one which has been observed in the American Continent. They are easily recognised by their sincipital crests, and a peculiar coloration. They are mostly inhabitants of cold or temperate regions, and the following species are probably confined, in India, to the Himalayas.

Gen. OTOCORIS, Bonap.—Crested-Larks.

Syn. *Phileremos*. Brehm.

*Char.*—Bill moderately short, slender, somewhat conical; the culmen distinctly arched; wings moderately long; no minute primary, and the first three sub-equal and longest; tail long, even; toes short; claws rather long and nearly straight; head with a double, erectile, sincipital crest.

The crested Larks differ from the two last forms, in their shorter wings and longer tail, as well as in the double crest, and there is always some black on the head and breast.

### 763. *Otocoris penicillata*, GOULD.

*Alauda*, apud GOULD, P. Z. S. 1837—BLYTH, Cat. Appendix, p. 337—HORSF., Cat. 709—O. scribe, BON.—GRAY. Gen. Birds, pl. 92.

## THE HORNED-LARK.

*Descr.*—Head, neck, and back, streakless vinaceous ashy, passing to purer grey on the wings; narrow frontal band, lores, ear-coverts, and the sides of the neck, meeting as a gorget across the breast, purple black; the crown and the pointed sincipital tufts also black; forehead, supercilia, continued round the ear-coverts posteriorly, throat, and below the breast, white, the latter tinged with yellow; primaries fuscous-ashy, the first, externally, white; the tail blackish, except the medial feathers, which are colored like the back, and the outermost and penultimate, which have white margins.

Bill and feet black. Length about 8 inches; wing  $4\frac{1}{2}$ ; tail 3; bill at gape  $\frac{2}{3}$ ; tarsus 1.

This is the description of the summer dress; in winter, probably, judging from the analogy of *O. alpestris*, the colors would be much concealed by deciduary grey edgings, and the black would be less intense and not so deep. The males differ from the females in being of a brighter colour, and in having the black feathers on the top of the head much more distinctly marked. The yellow gorget in winter is bright, and in summer remarkably faint, while the black on the nape is *vice versa*.

The Horned-lark is an inhabitant of the cold regions of Northern Asia, in winter descending to the plains, and coming South. It has been found in Nepal, Kumaon, and other parts of the Himalayas; also in Cashmere. Either this, or the next species, was observed by Adams on the lower Himalayan range (Birds of India, under No. 111).

Messrs. Dickson and Ross, who observed it in Western Asia, say, that they are driven to the plains in winter in search of food, which consists of the grain found in the dung of cattle. They fly in companies of from three to twelve birds; are very familiar, especially in winter, when they may be killed easily with an ordinary whip. They run on the snow with surprising rapidity, and, as soon as the snow has melted on the plains, they return to the mountains.

This Lark is said to sing well, mounting into the air, like a true *Alauda*.

764. *Otocoris longirostris*, GOULD.

MOORE, P. Z. S., 1855, with figure—HOESE., Cat. 710.

## THE LONG-BILLED HORNED-LARK.

*Descr.*—Allied in colour and in the black markings of the head and breast to *O. penicillata*, but differs in its larger size, considerably more lengthened bill, wings, and tail, in the thicker toes, and in the feathers of the back being broadly centred with brown.

Length  $7\frac{3}{4}$  inches; wing 5; tail  $3\frac{3}{4}$ ; bill at front  $\frac{6}{10}$ ; tarsus  $\frac{10}{12}$ ; hind toe and claw  $\frac{7}{10}$ .

This species has lately been described, and is said to have been procured in the neighbourhood of Agra, but most probably was from the Himalayas. Judging solely from the figure in the P. Z. S., it appears very close to the last, of which perhaps it is only a large specimen. The black on the neck is not continuous with the band from the eye, as in *penicillata*, but the resemblance is very close. Nevertheless, as Mr. Gould is familiar with the previous one, I shall, for the present, give it a place as a distinct species.

*Otocoris alpestris* is found in Europe, frequenting the sea shores, and has been killed on the English coast; and *O. bilopha*, Temm., Pl. Col. 241, f. 1, much smaller than the preceding, is found in North Africa, and Arabia Petræa, and may occur in the extreme west of Sindh and the Punjab. Several species occur in America, being the only Larks found in the New Continent, and some of these have been separated by Selater as *Neocorys*.

## Gen. SPIZALAUDA, Blyth.

## J. A. S. XIV. 258.

*Char.*—Bill as in *Alauda*, i. e., with the nostrils protected by bristles, but thicker and *Mirafra*-like in its form; wings long, with the 1st quill minute, the next four about equal and longest, as in the true Larks; tertisaries lengthened; hind toe and claw moderately developed; claws longer than in *Mirafra*; coronal feathers lengthened, and forming a pointed crest.

This is simply a thick-billed and highly crested *Alauda*.

765. *Spizalanda deva*, SYKES.

*Alauda*, apud SYKES, Cat. 98—*Mirafra* Hayi, JERDON, 2nd Suppl. Cat. 188 bis.—J. A. S. XIII. 959—BLYTH, Cat. 742—HORSF., Cat. 721—*Chinna chandul*, Tel.

## THE SMALL CRESTED LARK.

*Descr.*—Upper part, including the crest, isabelline or rufous brown, with black mesial streaks; upper tail-coverts rufescent without streaks; the first long primary broadly edged with rufescent, and the outermost tail-feather and most of the penultimate of the same hue; superciliary streak continued round the back of the head, and lower parts of a similar or isabelline hue, with a few dusky strizæ on the breast, and paling on the throat.

Bill horny brown, yellowish below; feet fleshy brown; irides dark-brown. Length  $5\frac{1}{2}$  to  $5\frac{3}{4}$  inches; wing  $3\frac{3}{4}$ ; tail about 2, a trifle longer; bill at front  $\frac{7}{16}$ ; tarsus  $\frac{3}{4}$ ; hind toe and claw  $\frac{1}{8}$ . The short first primary is about  $\frac{1}{2}$  an inch long; the crest has its longest feathers about  $\frac{3}{4}$  inch long; and the mesial dark streak of each is strong and contrasting.

This small crested Lark is found throughout Southern India, chiefly on the table-land, rare in the Carnatic. Sykes procured it in the Deccan, where also I observed it, at Jaulnah, and I obtained examples from the top of the Eastern Ghâts, and from Mysore. It frequents grass-land, and has quite the habits of a true Lark, and not at all those of a *Mirafra*, with which, from its thicker bill, I at first classed it. It is frequently caged in the Deccan and in the south of India, sings well, and is an excellent mocking bird.

We next come to the restricted Larks, with a comparatively slender bill.

## Gen. ALAUDA, Linnaeus (as restricted.)

*Char.*—Bill moderate, nearly straight, conical or subulate, slender; wings long, the first primary exceedingly minute, and the next four sub-equal, the fifth in some decidedly shorter; tips of the lesser quills emarginated; tail short or moderate; forked;

tarsus somewhat lengthened; feet large; hind claw<sup>2</sup> very long; coronal feathers elongated, forming a full crest.

766. *Alauda triborhyncha*, HODGSON.

GRAY, Zool. Misc. p. 84—*Alauda dulcivox*, HODGSON, apud BLYTH, MSS. Mus. As. Soc.—*A. arvensis*, Auct., apud BLYTH, Cat. 732—HORSF., Cat. 705—*A. cœlipeta*, PALLAS?—*A. japonica*, TEMM., and SCHL. F. J. pl. 47?

THE HIMALAYAN SKY-LARK.

*Descr.*—Above deep brown, the feathers edged with rufous, broadly so on back of neck; beneath, and eye-brow, pale fulvescent, or earthy white, rufescent on the breast, and with a few brown streaks; tail with the outer feathers nearly all white, and the penultimate with the outer web also white.

Length 7 inches; wing 4 to  $4\frac{1}{4}$ ; tail  $2\frac{3}{4}$ ; bill at front not  $\frac{1}{2}$ ; tarsus 1; hind toe and claw  $1\frac{1}{16}$ .

This Sky-lark has been found in Nepal by Hodgson. Blyth was latterly induced to separate the Himalayan birds, under Hodgson's name *dulcivox* (under which name he states that he received specimens from Mr. Hodgson), from the European bird, with which he formerly classed *dulcivox*, on the grounds that the form of the wing was distinct, the fourth developed primary in supposed *dulcivox* being barely  $\frac{1}{16}$  inch shorter than the third, whereas in *arvensis*, it is at least  $\frac{1}{4}$  shorter. The wing of the European Lark is given as  $4\frac{1}{2}$  inches, which is longer than in any Indian examples of the present bird. Moreover, the colors of *dulcivox* are said to be brighter, and the contrast more marked. In other respects the two birds are alike, except that the throat and ear-coverts are less spotted in the Himalayan bird, and there is a stronger rufous tinge on the wings.

It is certainly the *A. triborhyncha* of Hodgson, in Horsfield's Catalogue, No. 705, where it is described as follows:—"Very like *A. gulgula*; differs in being somewhat larger, and the bill smaller; the ferruginous colors brighter, especially on the wings. Length  $6\frac{1}{2}$  inches; wing  $4\frac{2}{10}$ ; tail  $2\frac{3}{4}$ ; tarsus  $\frac{7}{8}$ ; hind toe and claw  $1\frac{1}{8}$ . This Himalayan Lark has been sent from Nepal by Mr. Hodgson, and from Bootan by Mr. Pemberton."

It is most likely the *A. leiopus* of Hodgson, apud Blyth, olim J. A. S., where it is said to be distinguished from *A. gulgula* by its superior size, smaller bill, and longer tail; and from *arvensis* by the shape of its wing. That name however is now given as a synonym of *gulgula*. It is probably also the *triborhyncha* of Gray's Catalogue of the Birds of Nepal, rather than his *dulcivox*, of which no specimens were sent to the British Museum, nor to the Museum of the India House. The name *triborhyncha* should be adopted for this species, under which name it appears to have been sent to the European Museums, and it probably inhabits the higher regions of the Himalayas throughout.

*A. dulcivox*, Hodgson, apud Gray, may, I think with Horsfield, be considered as *A. arvensis* of Europe and Asia, which we know to be common in Afghanistan, and in the country bordering the Himalayas, and which Hodgson probably saw only as a cage-bird, not having sent any specimens to England.

### 767. *Alauda gulgula*, FRANKLIN.

P. Z. S., 1831—HORSF., Cat. 706—JERDON, Cat. 184—BLYTH, Cat. 733—*A. gracilis*, and *A. gangetica*, BLYTH—*A. leiopus*, HODGSON (in part)—*A. cœlivox*, SWINHOE?—*A. Malabarica*, apud BLYTH, Cat. 734—*A. arvensis*, apud SUNDEVALL—*Buruta-pitta*, Tel., vulgo *Niala pichiké*, or Ground Sparrow—*Manam-badi* Tam., i. e., Sky-bird—*Blurut*, H.

#### THE INDIAN SKY-LARK.

*Descr.*—Above, the feathers are dark brown, with fulvous margins; beneath fulvescent white, deeper on the breast, and spotted or streaked with dusky; ear-coverts spotted and tipped dusky; a pale eyestreak; the erectile feathers of the head moderately elongated. Some specimens have a rufous tinge on the upper tail-coverts, and also margining the large quills, more especially the secondaries, while the coverts are edged with grey; the tail has the outermost feather almost wholly fulvescent-white, and the penultimate one has its outer web, and sometimes the tip of the inner web of the same tint.

Bill horny brown, pale beneath; legs fleshy brown; irides dark brown; length 6 to  $6\frac{1}{2}$  inches; wing  $3\frac{1}{4}$  to  $3\frac{3}{4}$ ; tail 2 to  $2\frac{1}{4}$ ; tarsus 1; bill at front  $\frac{1}{2}$ ; hind toe and claw  $1\frac{1}{10}$ .

This species has much the plumage of the Sky-lark of Europe, but is a good deal smaller; the under parts are generally more rufescent, and there is a stronger tinge of this hue both on the upper and under surface of the wings, the outer tail-feathers too are generally tinged with the same. The wing has the fourth large primary barely shorter than the third, and the first three are nearly equal, as in *triborhyncha*.

Hill examples appear to be brighter, and with more strongly contrasting colours than those usually killed in the plains, and these Hodgson sent as *A. leipus*, but he also appears to have applied this name to the previous species (V. Gray, Cat. Birds of Nepal). Swinhoe has *Al. calivox*, which may be the same. He compares it with *A. japonica*, stating it to be a much smaller species than the Japanese bird. Blyth doubtfully puts it as *gulgula*.

The Indian Sky-lark is found throughout the whole of India, frequenting grassy hills, meadows, and fields; the grassy edges of tanks are favorite spots, and also the bunds of rice fields, in which they often breed. It rises into the air singing, but does not perhaps soar so high as the Lavrock of England. It breeds from March to June, making its nest of grass and hair, on the ground under a tuft of grass; and laying three or four greenish-grey eggs, with numerous brown and dusky streaks and spots. In the cold weather they associate more or less in flocks, and are taken in great numbers for the table. It is particularly abundant on the Neilgherries, and also in Wynaad, and in Lower Bengal. I did not procure it at Darjeeling. "The song," says Mr. Blyth, "very closely resembles that of the British Sky-lark."

Comparatively few residents in India are aware that a Sky-lark is common in almost every part of India, and when they go to a hill station, observe this bird, perhaps for the first time, with equal surprise and delight. About February many are brought to the Calcutta market, and sold as Ortolan.

*A. cantarella*, Bonap., a supposed distinct species that has been killed occasionally in the South of Europe, and said to be smaller and duller in colour than *arvensis*, ought to be compared with *A. gulgula*.

768. *Alauda malabarica*, SCOPOLI.

SONNERAT, Voy. aux Indes Or., 2, pl. 113, f. 1—BLYTH, J. A. S. XXIX., p. 96, not of his Catalogue.

THE CRESTED MALABAR LARK.

*Descr.*—Very similar to *A. gulgula*, but has a well developed pointed frontal crest. It is somewhat smaller, and the general tone of coloring much more rufous. It is found in various parts of Southern India, but I am not able at present to define its geographical distribution. It is however, a very distinct species, and follows *Spizalauda deva* very closely.

The wood Larks have been separated by Kaup as *Lullula*, in which the 1st primary is somewhat larger than in *Alauda arvensis*, and the 2nd also conspicuously shorter than the next three.

Several African species of *Alauda* are recorded, but some of them differ slightly from the typical form, and have been named *Calendulauda* by Blyth, having stouter bills.

The next form differs from the true Larks in its somewhat longer bill, crested head (to which, however, we are led by the last bird), and in the shorter hind claw.

Gen. GALERIDA, Boie.

*Char.*—Bill lengthened, slightly curved; wings, with the first primary moderately developed, the next four sub-equal, the second slightly shorter; toes and hind claw less elongated than in *Alauda*; an erectile, lengthened and pointed crest on the top of the head.

769. *Galerida cristata*, LINNÆUS.

*Alauda*, apud LINNÆUS—GOULD, Birds of Europe, pl. 165—HORSF., Cat. 703—*A. chendula*, FRANKLIN,—*Gal. chendula*, BLYTH, Cat. 740—*A. gulgula*, apud SYKES, Cat. 97—*A. deva*, apud JERDON, Cat. 186—*Certhilauda Boysii*, BLYTH (caged specimen)—*A. galerita*, PALLAS—*Chendul*, H. also in Tel., but sometimes called *Jutu-pitta*, i. e., the Crested bird.

## THE LARGE CRESTED LARK.

*Descr.*—Pale earthy or sandy brown, rufescent on the feathers of the upper parts, with pale dusky mesial streaks; the feathers of the crest alone, with dark brown centres; wings somewhat rufescent; upper tail-coverts the same, as are the lower surface of the wings and tail; outermost tail-feather rufescent white, the next with a border of the same on its outer web, the four middle feathers colored like the back, and the rest of the tail blackish; supercilia and lower parts sullied white, with a few brown streaks on the breast.

Bill yellowish; feet pale brown; irides dark brown. Length  $7\frac{1}{2}$  to  $7\frac{1}{2}$  inches; wing 4 to  $4\frac{1}{2}$ ; tail  $2\frac{1}{2}$  to  $2\frac{3}{4}$ ; bill at front  $\frac{3}{4}$ ; tarsus 1.

The crested Lark is widely spread over all the South of Europe, North Africa, and a great part of Asia; and it is found throughout all India, most abundant in the North and North-west. It is rare in the Carnatic, not found in Malabar, more common in the Deccan, and thence spreading from Behar in the East, to Sindh and the Punjab, where very common. It is not known in Bengal, nor in the Himalayas, nor in the countries to the eastwards. It prefers dry open sandy plains, or ploughed land, to grass, wet meadows, or cultivation. It rises in the air singing, though not so high as *A. gulgula*, nor is its song so fine. In winter, it may be seen in small parties, or sometimes in considerable flocks, occasionally on roads and barren places. Theobald found the nest and eggs; the former, a little grass, in a hole in the ground, the eggs four, yellowish-white, uniformly freckled with greyish-yellow and neutral-tint. It is frequently caged in all parts of the country, and the bird is kept in darkness by several layers of cloth wrapped round the cage; the custom being to wrap an additional cover round the cage every year. In this state it sings very sweetly, and learns to imitate most exactly the notes of various other birds, and of animals, such as the yelping of a dog, the mewling of a cat, the call of a hen to her chickens, &c., &c. Examples from different parts of the country differ somewhat in the depth of colour, some being lighter than others; and Mr. Blyth, from a small and caged specimen,

considered that there was a second and smaller race in India, which he named *G. Boysii*.

Two or three African species are recorded by Bonaparte and Tristram.

### 3rd.—Desert Larks.

These have the light aspect and the naked nostrils of the Pipits; typically inhabit desert and sandy places, and are numerous in Africa.

### Gen. *CERTHILAUDA*, Swainson.

*Char.*—Bill slender, lengthened, more or less curved; nostrils round and naked; wings very long, the 1st quill short, the second a little shorter than the next three, which are nearly equal; tail moderate or rather long, even; tarsus lengthened; toes short; hinder claw variable, typically short and straight.

The only species occurring in India has been separated from *Certhilauda* by several Ornithologists under the name *Alæmon*, Keys and Bl., on account of its peculiar, plain, almost unstreaked coloration, and slightly curved bill. A closely allied race is *C. Salvini*, Tristram, from North Africa; and *C. Duponti*, Vieill., is another of the same group.

### 770. *Certhilauda desertorum*, STANLEY.

*Alauda*, apud STANLEY—BLYTH, Cat 738—HORSF, Cat 702—*Al. bifasciata*, LICHT.—TEMM. Pl., Col. 393—RÜPPELL, F. Abyss., pl. 5—*Saxicola pallida*, BLYTH, J. A. S. XVI. 130.

### THE DESERT-LARK.

*Descr.*—Light isabella grey above, more fulvescent on the scapulars, tertiaries, and two middle tail-feathers, which are shaded with pale dusky along the middle; lores, superciliary stripe, throat and belly, white; the breast feathers dusky, with broad whitish margins concealing the dark colour within; ear-coverts blackish at the tip; wings deep dusky black; primaries and secondaries pure white at base; the shorter primaries also white tipped, and the small wing-coverts margined with pale fulvescent; tail, except the two middle feathers, deep dusky black, the outermost feathers having the narrow outer web almost wholly white, and the

penultimate with a narrow white edge on the outer web. The colours of the female are duller.

Length 9 inches; wing  $5\frac{1}{4}$ ; tail  $4\frac{1}{2}$ ; tarsus  $1\frac{3}{4}$ .

This Desert-lark of Africa and Arabia, and a rare straggler to the South of Europe, has been found in India only in Sindh, where observed by the late Dr. Gould; but it will probably hereafter be found throughout the great desert tracts of the N. W. Provinces. It is said to run fast, to live on seeds, and to be a fine songster. An Indian example is much darker than the figure in Rüppell, generally considered the same bird.

Tristram has an interesting account of this species (Ibis, vol. 1., p. 427.) "At first sight it reminded me much of a Plover, in the manner in which it rose and scudded away. Indeed, there is nothing of the Lark in its flight, except in early morning, when I have watched it rise perpendicularly to some elevation, and then suddenly drop, repeating these gambols uninterruptedly over exactly the same spot for nearly an hour, accompanying itself by a loud whistling song. It runs with great rapidity." *Alauda leautaugensis*, Swinhoe, from the plains of the Peiho, by its long and somewhat curved bill, may be a *Certhilauda*, but, being crested, perhaps is more properly a *Galerida*.

Some of the African species are said to inhabit desert, sandy places, interspersed with brushwood, or wild grassy plains; and, when not seeking their food, are commonly seen resting upon hillocks, or even perched on a low shrub, occasionally uttering a few whistling notes. Several are colored quite as the typical Larks, striated above and spotted on the breast, and these are said to affect grassy situations.

END OF PART I, VOL. II.