

Charles McFarlane Inglis  
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*Edited by ;* DR. J. C. SAHA, M.Sc., PH D.

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*Dedicated to*  
**Charles McFarlane Inglis**  
(1870—1954)

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**JOURNAL**  
OF THE  
**BENGAL NATURAL HISTORY SOCIETY**

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**BIRDS OF THE DUARS**

By

C. M. INGLIS, F.Z.S., C.M.B.O.U.

*(Continued from page 95, Vol. XXVII, No. 3, 1955)*

FAMILY CINCLIDAE

**76. The Indian Brown Dipper**

*Cinclus pallasii tenuirostris* Bonaparte

Fauna Brit. Ind., 2nd. Ed., No. 479

**Description.**— Length 8 inches. Sexes alike. Whole plumage chocolate-brown with a, more or less, distinct ring of white feathers round the eye.

Bill black ; iris hazel-brown ; legs light to dark brown.

The Dippers are squat-shaped birds with very short tails. Kinnear has described a race as *Cinclus pallasidorjei* from Bhutan which is darker than *tenuirostris*. Having no material for comparison I am unable to say to which race our bird belongs.

**Distribution and Habits.**— I have never seen this bird in the district but O'Donel came across it several times in the hills. It is entirely aquatic and frequents hills streams both in the hills and foothills, often diving into the most turbulent water in its search for water insects, larvae, etc. It spends much of its time below the surface of the water and has the power of walking there on the bed of the stream. It may also be seen sitting on a

boulder in midstream or also flying swiftly, close to the surface of the water, from one boulder to another. It is rather a shy bird and very active in its movements.

FAMILY TURDIDAE

SUBFAMILY Brachypteryginae

77. The Siberian Blue-Chat

*Luscinia (Larvivora) cyane* Pallas

Fauna Brit. Ind., 2nd. Ed., No. 483

**Description.**— Length  $5\frac{1}{2}$  inches. *Male* : Upper plumage dark blue ; in front of the eye, and a line below it, black ; lower plumage white, with the sides of the upper-breast, indigo-blue and the flanks washed with blue.

*Female* : Upper plumage olive brown ; lower plumage white ; throat, and breast, pale fulvous, mottled with brown.

Bill horny-brown, or black, on the upper-mandible and fleshly-yellow, or pale-horny, below ; iris brown ; legs white or pale fleshy.

**Distribution and Habits.**— A very rare winter visitor, the only specimen is one collected at Haldibari on the 18th February, 1932. Blue Chats are retiring birds keeping much to the undergrowth in forests, scrub-jungle or bamboo-jungle. They have a sweet, but not loud, note which they utter from the ground or from a bush and have the habit of flirting their tails. They are wholly insectivorous.

78. The Indian Blue-Chat

*Luscinia (Larvivora) brunnea brunnea* Hodgson

Fauna Brit. Ind., 2nd. Ed., No. 484

**Description.**— Length 5 inches. *Male* : Forehead in front of the eye and sides of the head and neck, black ; a long broad eye brow to the nape ; upper plumage, and exposed parts of wing and tail, dark blue ; point of chin and a thin line below

the cheeks, white; lower plumage bright chestnut, with the centre of abdomen, and patch below the tail, white.

*Female* : Differs from the female of the last species in having the fulvous of the lower plumage darker and brighter; the fulvous is, sometimes, suffused with brown.

Bill black in male, horny-brown in female, iris dark brown; legs blackish-grey.

**Distribution and Habits.**— This is another very rare winter visitor; the only specimen obtained is one shot by O'Donel, in a hedge in his garden at Haldibari on the 19th April 1933. It is a shy bird keeping to forest undergrowth, or scrub, also marshy spots and banks of streams and is not easily observed. It is insectivorous and keeps much to the ground. Whistler says it has a habit of fanning its tail "jerking it slowly downwards from the level of the back, every fifth or sixth movement bringing it up again".

#### 79. The Rusty-bellied short wing

*Heteroxenicus hyperythrus* Jardon and Blyth

Fauna Brit. Ind., 2nd. Ed., No. 487

**Description.**— Length 5 inches. *Male* : In front of eye, and frontal line, black; a short, but rather broad, white eyebrow; sides of the head and neck, whole upper plumage and exposed parts of wings and tail, deep blue; lower plumage bright chestnut.

*Female* : Upper plumage and exposed parts of wings and tail olive brown; lower plumage pale chestnut, suffused with brown on the flanks and vent; abdomen whitish.

Bill black, fleshy at base; iris brown; legs fleshy.

This bird rather resembles the Indian Blue-Chat in colour but the white eyebrow does not extend beyond the eye.

**Distribution and Habits.**— A very rare bird. I once obtained one near a stream at Haldibari in rather high grass jungle on

the 5th March 1930. Whistler compared the specimen at the British Museum, and wrote on the label. "A rare bird only 6 specimens in the British Museum." Stevens gives the following note "Haunts undergrowth in forest, thick secondary scrub and dense thickets of reeds. Quite fearless and in consequence most difficult to secure at such a close range".

**80. The Nepal short-wing or short-tailed Chat**

*Heteroxenicus Nipalensis Nipalensis* Hodgson

Fauna Brit. Ind., 2nd. Ed., No. 489

**Description.**— Length 5 inches. *Male* : Upper plumage deep slaty-blue, white eyebrow, often concealed, lower plumage white with the sides of the breast, and flanks, smoky-white, this colour, generally, forms a band across the breast.

*Female* : Upper plumage ferruginous olive-brown, a concealed white eye-brow. Lower plumage dull white, with a fulvous band across the breast and the sides of it and flanks are of the same colour.

Bill dark brown above, yellowish-horny below, yellower on gape ; iris brown ; feet fleshy-white.

Males in east Assam and south of the Brahmaputra, never assumes the blue plumage but are like the females.

**Distribution and Habits.**— This is probably a rare bird in the Duars. O'Donel picked up a dead one at Hasimara some years ago which was identified by Whistler. Dr. Hora collected one at Gish on the 22nd November 1938 but, possibly, this was in the Kalimpong Division of the Darjeeling district. It is a shy bird and goes about singly, or in pairs, keeping to undergrowth or that which grows up in deserted cultivation. It has a pretty song and is insectivorous, hunting about in dead leaves on the ground for much of its food. It is, of course, only a winter visitor.

81. The Nepal Long-tailed Short-wing

*Hodgsonius Phoenicuroides Phoenicuroides* Gray

Fauna Brit. Ind., 2nd. Ed., No. 491

**Description.**—Length  $7\frac{1}{2}$  inches, of which the tail measures 3.2 inches. *Male*: Slaty-blue; central tail feathers blue-black, the four outer pairs have the basal halves chestnut and the next pair has chestnut only on the outer-web.

*Female*: Upper plumage olive brown, wings and tail tinged with rufous and the latter with chestnut where they are that colour in the male, lower plumage ochraceous, suffused with brown on flanks; chin, throat, and abdomen white.

Bill brown or plumbeous-olive above, paler below; iris dark brown; legs olive-plumbeous. This Shortwing differs from the others in having a long, graduated tail; this measures 3.2 inches whereas the tails of the other two only measure 1.7 and 1.4 inches respectively.

**Distribution and Habits.**—This is another, apparently, rare bird in the district. I have never come across it but O'Donel obtained three specimens all near Hasimara, on the 8th and 15th February 1923 and on the 2nd March 1927. The first two specimens are in my private collection. It is a bird of thick cover either in forest or scrub-jungle and it keeps more to bushes than the ground unlike the last two birds. It has a sweet song uttered from the top of some bush. Both Davidson and Stevens mention this bird's habit of raising its tail, almost perpendicularly, like a Robin.

SUBFAMILY Sascicolinae

82. The Northern Indian Bush-Chat

*Saxicola caprata bicolor* Sykes

Fauna Brit. Ind., 2nd. Ed., No. 494

**Description.**—Length 5 inches. *Male*: Black, except above and below the tail, the abdomen and a patch on the

wings, all of which are white. In the *autumn*, the back and breast are, sometimes, margined with rufous-brown.

*Female*.—Greyish-brown, with a rufous patch above the tail ; chin and throat, brownish-grey ; lower plumage greyish-brown darker, and more rusty on the breast and fulvous towards the tail. Bill and feet black ; iris brown.

**Distribution and Habits**.— An uncommon bird in the Duars. O'Donel collected one at Haldibari on the 26th July 1928. I have not come across it myself. It is, usually, a common bird where found, haunting grass-land and scrub-jungle and may be often seen perched on the top of a tall bit of grass, or bush, descending to the ground to capture any insect it has seen there, then returning again to its vantage point. It spreads and flirts its tail like other members of the genus.

### 83. The Indian Stonechat

*Saxicola torquata indica* Blyth

Fauna Brit. Ind., 2nd. Ed., No. 495

**Description**.— Length 5 inches. *Male*: Upper plumage brownish-black ; the feathers, in autumn, edged with fulvous ; sides of head, chin and throat black also edged with fulvous in the autumn ; a large patch of white on the sides of the neck and another on the wings, breast orange-rufous merging into the pale rufous of the rest of the lower plumage.

*Female*.—Brown, the feathers slightly edged with fulvous in the autumn, a small white patch on the wing and the lower plumage is pale orange-rufous.

Bill and legs black ; iris dark brown.

There are several races of Stonechats and this is the commonest over the greater part of India but, curiously enough, it appears to be rare in this district, which is all the more curious seeing it is the breeding race of the Darjeeling Hills. I have collected 40 specimens of Stonechats in the Duars, of those one obtained at Binaguri, on the 13th March 1945, appears to belong to this race, 31 are of the next subspecies.

**Distribution and Habits.**—As already mentioned this appears to be a rare race in the Duars though, of course, it is easily passed over amongst many Stonechats one sees and so may be less rare than I imagine. It is a bird of open country, either cultivation of grass land and may be seen perched on the top of a reed or some bush, on the look out for its insect prey and, like the last species, it pounces on it on the ground either consuming it there or else returning to its perch to do so. It constantly flirts its tail, especially when settling. It is generally seen singly and its note is a short, low trill and its alarm one is *kweet-chat, kweet-chat*.

#### 84. The Turkestan Stonechat

*Saxicola torquata przewalskii* Pleske

Fauna Brit. Ind., 2nd. Ed., No. 496

**Description.**—*Male*: Differs from the last in the back being much darker, almost black; the feathers edged with rufous-fulvous, lower plumage deep orange-rufous reaching well on to the flanks and abdomen.

*Female*: Rather darker than the female of the last bird and larger.

Bill and legs black, iris dark brown. This race is a slightly larger than the Indian Stonechat and is the darkest coloured of all the races.

**Distribution and Habits.**—A very common winter visitor remaining at any rate, to the end of March. Its habits differ in no way from those of the last race. It is the breeding bird of Tibet and, according to Stuart Baker, its nest was once taken at Monywa, in the Chin Hills, Burma.

#### 85. The Japanese Stonechat

*Saxicola torquata stejnegeri* Parrot

Fauna Brit. Ind., 2nd Ed., No. 497

**Description.**—Length 5 inches. This race has the colour, in both sexes, darker than that of the Indian Stonechat, but paler than that of the Turkestan race.

Bill and legs black ; iris dark brown. The bill is broader, and stouter, than in the last two races but this is not very distinct.

**Distribution and Habits.**—This is, also, a winter visitor but rarer than the last bird, as out of 40 Stonechats collected in the Duars, only 5 belonged to this race ; these were all compared, by Whistler, with specimens in the British Museum. Its habits are the same as those of the other races. My specimens were obtained near the Dudhua, not far from Gaikata, at Haldibari and Jalpaiguri, in January, February and March.

86. The White-tailed Stonechat

*Saxicola torquata leucura* Blyth

Fauna Brit. Ind., 2nd. Ed., No. 498

**Description.**—Length 5 inches. *Male*: Upper parts paler than in the Indian Stonechat and the orange-rufous of the lower plumage of the male, is confined to a patch on the breast, the rest of the lower plumage is white ; the tail has the pair of feathers, next the central ones, white on the whole of the inner webs, the white decreases slightly to the outermost ones.

*Female*.—Upper plumage brown, with paler edgings to the feathers ; a very small, concealed, patch of white on the wing ; the tail has no white and the lower plumage is earthy-white, dull brownish fulvous on the breast.

Bill and legs, black ; iris dark brown.

It is easily recognized by its paler colouration and the amount of white on the tail and lower plumage of the male.

**Distribution and Habits.**—I obtained three or four specimens in the grassy churs of the Torsa river ; O'Donel found it common there in former years. It frequents reed-beds and grass-lands, either on the churs of rivers or in the vicinity of swamps. It is like the other Stonechats in all its movements and, like them, is insectivorous. It is only a winter visitor.

87. Hodgson's, or the Large, Bush-Chat

*Savicola insignis* Hodgson

Fauna Brit. Ind., 2nd. Ed., No. 500

**Description.**—Length  $6\frac{1}{2}$  inches. *Male*: In *winter* the upper plumage black with all the feathers edged with fulvous, broadest on the back ; chin, throat and sides of neck, white, with some rufous marks ;—lower plumage orange-rufous, the abdomen paler or, sometimes, white ; a large, white patch on the wings.

*Female*.—Upper plumage brown, margined with dull fulvous ; sides of head fulvous, tinged with rufous ; lower plumage rusty fulvous, pale on the chin and throat, and below the breast ; a white patch on the wing.

Bill and legs black ; iris dark brown.

It can easily be recognised by its large size.

**Distribution and Habits.**— I obtained 3 males on the 7th, 8th and 9th and 1 female on the 10th January 1931 at Jalpaiguri. I have seen it nowhere else. Mandallis collectors secured it in the "Bhutan Duars" in April. Its breeding grounds are not known. In Bihar I came across it in sugarcane fields and ekra grass, those obtained in Jalpaiguri were in grass-land. From the little I have observed this Bush-Chat seems to have much the same habits as other members of the genus.

88. The Black and White, or Jerdon's, Bush-Chat

*Rhodophila melanoleuca* Jerdon

Fauna Brit. Ind., 2nd. Ed., No. 501

**Description.**—Length 6 inches. *Male* : Upper plumage glossy blue-black, lower plumage white. *Female* : Upper plumage brown, tinged with rufous ; chin, and throat, white ; rest of lower plumage light fulvous, darkest on breast and flanks.

Bill, and legs, black, iris dark brown.

Chats of this genus have longer, and more graduated, tails than those of the previous one.

**Distribution and Habits.**— I have only twice come across this pretty Bush-chat and both times at Haldibari ; a male on the 31st December 1931 and a female on the 8th February 1932, both were found in thatch land. This Bush-chat is seen both in grass lands and reeds, often near water and has, according to Stuart Baker, the habit of, sometimes, hunting "amongst the bottoms of the reeds and grass for insects more like a Babbler than a Chat." It must be a rare visitor to the district.

#### 89. The Dark-Grey Bush-Chat

*Rhodophila ferrea* G. R. Gray

Fauna Brit. Ind., 2nd. Ed., No. 502

**Description.**— Length 6 Inches. *Male* : Upper plumage dark ashy-grey with broad, black, arrow-shaped centres and, in autumn specimens, often fringed with rusty ; a broad white eyebrow and sides of head black ; wings black edged with grey and with a white patch on the inner coverts ; tail black, margined with white, outermost quills entirely of that colour ; lower plumage white, ashy on the breast and flanks.

*Female* :—Upper plumage rufous ashy with dark centres to the feathers ; a pale grey eye-brow and rest of the sides of the head reddish brown ; chin and throat dirty white ; rest of the lower plumage pale rufous ashy, darkest on the breast.

Bill and legs, black ; iris dark brown.

**Distribution and Habits.**— A common winter visitor all over the Duars, where it is found in grass-land, open bush and scrub jungle and it is frequently seen sitting on the top of a tea bush, often diving down on to the ground to pick up an insect. It is by no means a shy bird and does not shun the habitations of man being a very common bird of hill-stations. Its song has been rendered as *titheratuchak-lew-titatit*.

SUBFAMILY Enicurine

90. The Eastern spotted Forktail

*Enicurus maculatus guttatus* Gould

Fauna Brit. Ind., 2nd. Ed., No. 518

**Description.**— Length 10 inches. Sexes alike. Forehead and anterior crown, white; rest of head, back and breast black, with round white spots on the back and smaller ones on the nape, rump, and above the tail, white; broad bars across and tips to some of the feathers of the wings, white; tail black with broad white tips, the outer feathers wholly white; lower plumage, below the breast, white.

Bill black; iris dark brown; legs pale fleshy white.

The tail in all the Forktails is very deeply forked, hence their name.

**Distribution and Habits.**— The only place where I have seen, and obtained, this handsome Forktail is at Baksa Duar on the 7th March 1918; it never seems to descent to the plains. All Forktails love streams and, superficially, resemble Wagtails, in fact they used to be placed in the same family. This Forktail frequents forest streams and may be seen running along their edges, or walking over the stones in its search for insects, continually wagging its beautiful tail up and down. On being disturbed it often flies into the forest and through it to further up the stream. It is said to be a very sedentary bird and has a loud, rather plaintive, call like *cheer*, both uttered while flying and when settled on the ground or stones. Its flight is quite fast and dipping and very graceful like all the actions of these birds.

This fine Forktail may, possibly, breed in the hilly parts of the district as it does so elsewhere from 2,000 feet upwards. The breeding season is from April to July and the nest is a compact, but massive, cup of green moss, mixed with roots

and mud and lined with skeleton leaves. It is placed on the ledge of a rock, amongst boulders or occasionally, among the roots of trees, generally close to the water but, sometimes, some distance from it. The eggs number 3 or 4 and are pale greenish or pale stone-colour with small blotches, freckles and spots of reddish-brown. They measure about 0.93 by 0.68 inches.

#### 91. The Slaty-backed Forktail

*Enicurus schistaceus* Hodgson

Fauna Brit. Ind., 2nd. Ed., No. 519

**Description.**—Length 10 inches. Sexes alike. A frontal line, running back to the eye, white; upper plumage slaty, blue-grey with the rump and above the tail white; sides of head and neck, chin and upper throat black; wing-coverts black, the greater tipped with white; shoulders slaty blue, with white tips; wings with white markings rather similar to those of the last species, the bases of the outer flight feathers with a white patch at their base, except the first two, tail black, the two outermost pairs white, the others tipped with white; lower plumage white sometimes the breast has indistinct, narrow dark tips.

Bill black; iris brown or blackish-brown; legs pale fleshy.

This is a slimmer bird than the Spotted Forktail.

**Distribution and Habits.**—O'Donel said it was a common winter visitor to the plains but all the birds I have come across are of the next species. This is a bird of the hills, foothills and adjoining plains. The habits of all these Forktails are the same.

#### 92. The Black-backed Forktail

*Enicurus immaculatus* Hodgson

Fauna Brit. Ind., 2nd. Ed., No. 520

**Description.**—Length about 10 inches. Sexes alike, forehead to the eye, rump, above the tail, a broad bar across the wings tips to some of the wing-quills, the two outer pairs of tail

feathers and the tips of the rest, and whole of lower plumage, below the lower throat, white ; the rest of the plumage black.

Bill black ; iris dark brown ; legs fleshy-white.

Some specimens have the head, and upper back, slightly slaty. This Fork-tail is of the same build as the last.

**Distribution and Habits.**— This is the commonest of our Forktail and a resident one. Its habits are the same as those of the others of the genus. It keeps to forest streams.

The breeding months are April and May. The nest is cup-shaped and composed of moss, roots and leaves and situated in hollows of fallen trees, on the bank of streams, etc., inside the forest. It lays 3 eggs which are rather paler than those of the last and sparsely marked with bright, pale reddish-brown. In size they are slightly smaller than those of the Slaty-backed Forktail.

**93. The Indian Black-breasted, or Leschenault's, Forktail**

*Enicurus Leschenaulti indicus* Hartert

Fauna Brit. Ind., 2nd. Ed., No. 521

**Description.**— Length 11 inches. Sexes alike. Forehead, and anterior crown, white, rest of head, upper beak, and breast black ; lower back rump, and above the tail, white ; tail with broad white bases, the two outer feathers entirely white and the rest black, tipped with white ; wings black with a broad white band across the tips of the greater coverts, inner wing-feathers tipped with white and with white bases ; lower plumage, from below the breast, white.

Bill black ; iris dark brown ; legs fleshy-white. This is our largest Forktail and easily recognised by having a black back like *immaculatus* and a black chin, throat, and breast like *guttatus*. The crown feathers are semi-erectile.

**Distribution and Habits.**— I have no personal knowledge of this large Forktail within the district but O'Donel said it

was, occasionally, seen in the winter. It is a bird of low elevations extending well into the plains in the winter and keeping to streams running through evergreen forest, or to jungle paths away from those running along them in their graceful manner. It is a shy bird than the other species and like them insectivorous.

**94. The Himalayan Little Forktail**

*Microcichla Scouleri Scouleri* Vigors

Fauna Brit. Ind., 2nd. Ed., No. 525

**Description.**—Length 5 inches. Sexes alike. Forehead rump (except for a black band across it) above the tail, a broad band across the wing, two outer tail feathers and lower plumage, below the breast, white; the breast and flanks, are mottled with blackish; rest of plumage black.

Bill black, iris brown, legs fleshy-white. The smallest Forktail with a very short and very slightly forked tail.

**Distribution and Habits.**—Common in the hills, and foot hills in the winter. It loves torrents in the hills and fast flowing streams, with rapids, in the foothills and is generally seen standing on a boulder in mid-tream with the water playing over its feet. It is a very active little bird in all its movements and submerges itself in the water to a greater extent than any of the other Forktails, like them feeding on aquatic insects, dragon-fly larvae, etc.

SUBFAMILY Phoenicurinae

**95. The Blue-fronted Redstart**

*Phoenicurus frontalis* Blyth

Fauna Brit. Ind., 2nd. Ed., No. 526

**Description.**—Length 6 inches. *Male*: Forehead and eyebrow, brilliant blue; upper plumage as far as rump, rest of the head, neck, upper breast, and some wing coverts, dull blue; rump, above the tail and rest of the lower plumage, chestnut;

tail feathers, except the central pair which are blackish, chestnut, the lateral ones broadly tipped with black, wing quills brown margined with light rufous.

After the autumn moult the blue feathers are fringed with rufous and the wings are broadly edged with that colour.

*Female* : Upper plumage fulvous-brown, darker on the head and back throat, and breast, fulvous brown, rest of lower plumage orange-brown brighter on abdomen and below the tail, rump and tail similar to those of the male.

Bill and feet, black, iris dark brown.

Both sexes can easily be recognized from other Redstarts by having broad black tips to the chestnut feathers of the tail. The white-capped Redstart has the same but the white cap on its head distinguishes it.

**Distribution and Habits.**— I have never come across this bird in the district but O'Donel noted it, and Stuart Baker gives it from the Duars. It would be only a winter visitor and found on hill-streams above 2,000 feet. It goes about in pairs haunting the banks and beds of the streams shivering its tail after the manner of other Redstarts.

**96. The Chestnut-breasted, or Hodson's, Redstart**

*Phoenicurus hodgsoni* Horsfield and Moore

Fauna Brit. Ind., 2nd. Ed., No. 530

**Description.**— Length 6 inches. *Male* : Forepart of the crown and a line over the eye, white ; crown, nape and back ashy ; sides of the head, and from chin to upper-breast, black ; rest of lower plumage lower rump and above the tail, chestnut ; tail chestnut except that the central feathers are only of that colour at their base, the remainder being blackish-brown ; there is a patch of white on the closed wings.

In *winter* there are grey fringes to the feathers of the breast and fore-neck but these do not remain for long.

*Female* : Upper plumage ashy-brown and a pale ring round the eyes rump and tail as in the male ; lower plumage is more ashy than the upper and shades into white on the abdomen ; flanks, and vent, pale rufous.

Bill black ; iris dark brown ; legs black.

**Distribution and Habits.**— A common winter visitor all over the district remaining, at any rate, upto the end of March. It is usually seen in river beds but also some distance from them, in grass land and even in gardens, at Rydak a pair in the garden were far from shy, one used to frequently sit on the edge of the verandah. Stevens wrote as follows about some he saw at Bhutan ghat on the Raidak river "one or two males scattered at wide intervals along the river-edge and an equal number of females ; both sexes keeping apart, the females farther inside, away from the river and on the outskirts of the forest". It is insectivorous.

#### 97. The Eastern Indian Redstart

*Phoenicurus ochrurus rufiventris* Vieillot

Fauna Brit. Ind., 2nd. Ed., No. 532

**Description.**—Length 6 inches. *Male* : Crown dark ashy-grey ; forehead, sides of head, upper plumage and breast, black (in *winter* the black is fringed with ashy) rump above the tail, and rest of lower plumage, bright chestnut ; central pair of tail-feathers brown, the lateral ones bright chestnut ; wings brown edged with rufous.

*Female* : Upper parts brown, tinged with rufous ; a pale ring round the eye ; sides of head, and breast, buffy-brown ; rest of lower plumage buffy-brown suffused with orange ; the rump and tail, are paler than in the male.

Bill and legs black, iris dark brown.

The females of these three Redstarts may be distinguished as follows :—

- A. All tail feathers, except middle ones,  
abruptly tipped with black.....*P. frontalis*
- B. Lateral tail-feathers wholly chestnut
  - (a) Lower plumage chiefly ashy-brown.....*P. hodgsoni*
  - (b) Lower plumage buff, suffused with orange.....  
*P. ochrurus rufiventris*

**Distribution and Habits.**—I have not come across this Redstart till after the third week in March in the plains. It is seen during its upward migration in April and May. It frequents open spaces in forest, bamboo-jungle near streams, the vicinity of groves and also enters gardens. It is not a shy bird, in fact it might be called a friendly one while in its winter haunts. It perches on trees and walls and roofs and often descends to the ground to pick up some insects. It shivers its tail and sometimes semi-spreads it and jerks it right over its back.

#### 98. The White-Capped Water Redstart

*Chaimarrornis (Phoenicurus) leucocephalus* Vigors

Fauna Brit. Ind., 2nd. Ed., No. 534

**Description.**—Length 7 inches, sexes alike. Crown and nape, shining white, rest of head, neck, back, breast and wings glossy black, rump above the tail, rest of lower plumage bright maroon ; tail chestnut maroon for basal two-thirds, the rest black.

Bill and legs black, iris dark brown.

This bird's glistening white cap readily distinguishes it.

**Distribution and Habits.**—A common bird in the hills and foot-hills, during the winter and wandering a considerable

distance into the plains as I obtained one on the Murti near Gorumara, on the 10th December. It is an active bird and loves rushing rivers and streams. It is often seen flying swiftly, from boulder to boulder and like the other Redstarts it has the habit of incessantly raising its tail up and down or else it may be seen in the water near its edge. Although, generally, a bird of rushing water it will wander away from its vicinity as Ludlow often saw it "on rocky hill-sides at a considerable distance from running water" in east Bhutan. Whistler says it has a "loud plaintive squeek *t-e-e-e-e* . . . easily heard amongst the roar of the waters" and Deignan says "the call note is a sharp *ping*". It is insectivorous.

#### 99. The Himalayan Plumbeous Water Redstart

*Rhyacornis (Phoenicurus) fuliginosa fuliginosa* Vigors  
Fauna Brit. Ind., 2nd. Ed., No. 535

**Description.**— Length 5 inches. *Male* : Whole plumage plumbeous slate, above and below the tail and the tail itself, bright chestnut.

*Female* : Upper plumage brownish-ashy ; wings brown edged with pale rufous, the coverts and inner wing-quills with small white spots, tail white at base ; the rest blackish-brown ; lower plumage brownish-ashy, mottled with ashy-white, sides of head and neck, chin and upper throat often tinged with rufous.

Bill black, iris and legs dark brown.

This Redstart has a much shorter tail than any of the others.

**Distribution and Habits.**— Common in the hills, and foot-hills wandering well into the plains during the winter as I have obtained it both in the Moraghat forest and on the Murti river near Gorumara. It is a very active little bird and loves turbulent streams. It may be seen sitting on a boulder spreading out its tail slightly and wagging it up and down or marking short sallies

after insects in the air. It has quite a sweet little song often heard in the breeding season than in the winter and is, according to Salim Ali, an identical term of that of the White-throated Fantail-Fly Catcher.

100. The Eastern Red-spotted Blue-throat

*Cyanosylvia Svecica pallidogularis* Zarudny

Fauna Brit. Ind., 2nd. Ed., No. 537

**Description.**— Length 6 inches. *Male* : Upper plumage brown ; a buffish-white eyebrow from the nostrils to well behind the eye ; tail brown, with basal two-thirds of the outer-feathers, rufous ; chin, and throat, blue, with a rusty-red spot in the centre and a black band next the blue with, below it, a rusty-red band, rest of lower plumage buffy-white.

*Female* : Whole of the lower plumage buffish-white or gorget of brown, or blackish-brown, spots across the breast ; otherwise like the male.

Bill black, fleshy at base of lower mandible ; iris brown, legs fleshy or light brown.

When rising from the ground, or cover, the most noticeable feature is the rufous on the tail.

**Distribution and Habits.**— A very common winter visitor, remaining at any rate, until the end of March, probably much later. Generally seen in the morning and evening on paths through scrub-jungle or grass-land ; it is also partial to cover in river-beds and cultivated crops. It spends nearly the whole of its time on the ground, and every now and then as it runs about it slightly expands and raises its tail ; sometimes it sits, momentarily, on the top of a bush or stem of some crop plant. It is insectivorous.

101. The Chinese Red-Spotted Blue-Throat

*Cyanosylvia Svecica robusta* Buturlin

Fauna Brit. Ind., 2nd. Ed., No. 538

**Description.**— About the same size, a little larger, than the last. The upper plumage is darker and the rump, and above the tail, have more of a red tinge on them than in the last race.

Bill black, fleshy at base of lower mandible ; iris brown ; legs light brown or yellowish-brown.

**Distribution and Habits.**— I obtained about half a dozen specimens of this race at Haldibari. They were collected from December to the 10th March. Whistler most kindly compared them, and others of the last race with those in the British Museum. It appears to be a rarer race in the district as three quarters of the Blue-throats collected belonged to the last one. It is sure to be found elsewhere in the district in suitable spots. Its habits do not differ from those of the Eastern race.

102. The Common, or Siberian, Ruby-throat

*Cyanosylvia calliope* Pallas

Fauna Brit. Ind., 2nd. Ed., No. 542

**Description.**— Length 6 inches. *Male* : Upper plumage olive-brown ; narrow white eye-brow and a broad white moustachial-streak ; in front of, and below, eye, black ; chin and throat glistening ruby-scarlet margined with black ; upper-breast dark ashy ; rest of lower plumage buffy-brown with flanks buffy and abdomen, and patch below the tail, white, the latter washed with buff.

*Female* : Chin and throat white, shading into buffy-brown on the breast ; moustachial streak buffy-white.

Bill dark brown, base light horny ; iris brown ; legs horny-brown.

**Distribution and Habits.**— A very common winter visitor, arriving in September and at any rate, remaining till the end of March. This Ruby-throat frequents scrub and bamboo-jungle, also grass land and has the same habits as the Blue-throats. It has a sweet but rather monotonous song.

**103. The Eastern Himalayan Ruby-throat**

*Cyanosylvia pectoralis confusa* Hartert

Fauna Brit. Ind., 2nd. Ed., No. 544

**Description.**— Length 6 inches. *Male* : Upper plumage dark slaty ; a conspicuous white eyebrow ; sides of head, the breast, black ; chin and throat, crimson ; lower plumage, below the breast, white ; tail blackish-brown ; basal half, or more, of lateral feathers and also tips of the same, white.

*Female* : Differs from the last in having the lateral tail-feathers tipped with white, a white eyebrow not always present.

Bill dark brown, base bright horny ; iris brown ; legs horny brown.

**Distribution and Habits.**— The rarest of our Ruby-throats. I have only once come across and secured, one that was at Hasimara on the 19th February 1927 ; as it was a male there was no difficulty in identifying it. It has the same skulking habits of the other members of the genus. It does not wander into the plains during the winter as does the last, and the next, species and is only likely to be come across in the hills and foothills.

**104. The Tibet Ruby-throat**

*Cyanosylvia pectoralis tschebaiewi* Prjevalsky

Fauna Brit. Ind., 2nd. Ed., No. 545

**Description.**— Length 6 inches. *Male* : Distinguished from the last by its broad, white moustachial-streak and narrower

white eyebrow ; the white at the base of the tail is less extensive and the upper plumage is, usually, more olive brown.

*Female* : Cannot always be differentiated from that of the last species ; the white eyebrow is present but this is not always so in *confusa* according to C. B. Ticehurst. A few red feathers are sometimes present on the chin.

Bill dark brown, base light horny ; iris brown, legs horny-brown.

The easiest distinguishing feature of these black breasted Ruby-throats is the absence of the broad moustachial-streak in the last and its presence in this race.

**Distribution and Habits.**— A common cold weather visitor to the plains remaining, at any rate, well into March, probably, later. Stevens has the following note about this bird " During the day it keeps to the ground, only at early morn the male may be seen uttering its weak, yet pleasant, trill from the top of a bush or shrub. Its richly coloured throat is a prominent character, otherwise seldom seen although not easily disturbed. "While having a walk through some grass-land, interspersed with bushes, in the early morning or evening, at Haldibari I could, generally, be sure of either seeing this or the Common Ruby-throat on the path. It is, perhaps, rather less a skulker than the other species.

#### 105. Nepal Golden Bush-Robin

*Tarsiger chrysaeus chrysaeus* Hodgson

Fauna Brit Ind., 2nd. Ed., No. 546

**Description.**— Length 6 inches. *Male* : Forehead to lower back olive green ; a line from the forehead, through the eyes, the ear-coverts and wings black, the latter edged with olive-green, central tail feathers black, sometimes with narrow orange margins, the lateral feathers orange, broadly tipped with black, and eyebrow and rest of plumage bright orange.

*Female* : Upper plumage olive-green, the tail has olive-green instead of the black in the male, lower plumage ochraceous-yellow, the flanks washed with olivaceous.

Bill dark horny brown, lower mandible, and the edge of the upper one, yellow ; iris dark brown ; legs fleshly or olive-yellow.

The golden orange of the male makes it easily recognizable.

**Distribution and Habits.**— O'Donel mentioned this bird from Hasimara but that seems very low for this species. I have never seen it in the district but it is quite likely to occur in the hills above Baksa Duar in winter. It frequents dense bush-jungle and forest, where it conceals itself and moves about on the ground ; every now and then it moves on to some other bit of jungle. It also, as Stevens writes "flits about the road side, remarkably tame" during cold, raw weather in its hilly haunts. I once found a nest with 3 fresh eggs on the 2nd July 1904 at Sandakphu (11,900 ft.) in the Darjeeling district.

**106. The Nepal Orange-flanked Bush Robin**

*Ianthia cyanura rufilata* Hodgson

Fauna Brit. Ind., 2nd. Ed., No. 549

**Description.**— Length 6 inches. *Male* : Forehead, eyebrow, rump, above tail, and some wing-coverts, ultramarine blue ; rest of upper plumage, sides of head, neck, throat and breast, deep purplish-blue ; lower plumage white, brownish-ashy on the breast ; flanks golden-orange.

*Female* : Upper plumage rufous olive-brown ; rump, and above tail, olive greyish-blue ; a faint trace of a bluish eyebrow ; sides of head and neck and whole breast, ochraceous ; chin, throat, and centre of abdomen, white ; on each side of the flanks is a patch of golden-orange.

Bill dark brown, lighter at base ; iris brown ; legs pale to dark brown.

The tips of the tail feathers are very pointed.

**Distribution and Habits.**— I once came across and obtained a male of this handsome bird at Baksa Duar on the 2nd March 1918. I have never seen it again. It is a bird of high elevations and not known to occur below 3,500 feet. It is a forest loving bird often seen in clearings and lighter river bed jungle. It is not a shy bird and can be observed at a close range while it haunts for insects. It moves about both on the ground and in the bushes. Its call note has been syllabalized as *prot.*, the answer being *tee*, both sexes use these notes. Ludlow says "it has a peculiar three-syllabled spring song which it utters in the early morning and late evening". It is only a rare winter visitor to the hills of the district.

107. The Indian White-tailed Blue-Robin

*Myiomela (Muscisylvia) leucura leucura* Hodgson

Fauna Brit. Ind., 2nd. Ed., No. 554

**Description.**— Length 7 inches. *Male* : Forehead, a short eye brow and shoulders shining cobalt-blue; upper plumage black suffused with blue; a concealed white patch on each side of the neck; tail black, all the feathers, except the central and outer pairs, with the bases of the outer webs white, increasing in size towards the centre.

*Female* : Upper plumage rufescent-brown, ferruginous on the exposed portions of the wings and the tail, the latter has the same white patches but smaller and there are the same concealed white patches on the sides of the throat, lower plumage like the upper, changing to ashy on the centre of the abdomen and albescent below the tail.

Bill black, iris brown, legs blackish-brown.

Its most noticeable feature is the white on the tail of both the sexes.

**Distribution and Habits.**— A regular visitor to the plains remaining, at any rate, till the end of March ; it extends well into them as I secured several specimens in the Moraghat forest. It is often seen near shady streams in thick forest and is also found in bamboo jungle. It keeps much to the ground and when disturbed flies into a tree ; it has the habit of flirting its tail and in doing so, the white patches on it become very noticeable. It is generally rather shy but, nevertheless, does not shun the neighbourhood of man as on the 11th June 1904 in Darjeeling, I found a nest, with 4 fresh eggs, on the bank, bordering a path, through a wooded part of the garden of the house in which I was staying. It is insectivorous, feeding both in the bushes and on the ground and it has a sweet but short song.

#### 108. The Indian Magpie-Robin

*Copsychus Saularis Saularis* Linnaeus

Fauna Brit. Ind., 2nd. Ed., No. 558

**Description.**— Length 8 inches. *Male* : Upper plumage, including whole of the head and neck and down to the lower breast, glossy blue-black ; rest of the lower plumage, a patch on the wing close to the body, and the tail, except its central feathers which are black, white.

*Female* : Upper plumage ashy-brown, sides of the head, neck and the chin and breast, grey ; the white parts are as in the male.

Bill dark brown to black ; iris brown ; legs dark plumbeous.

The tail is graduated. Easily recognised by the pied black and white plumage of the male.

**Distribution and Habits.**— A very common resident bird, coming into and breeding in, our gardens ; it also frequents groves near villages and the outskirts of forest. It may be seen on the lawn, hopping about, elevating and spreading out its

tail after each little spurt. Most gardens have their pair of birds and they specially like those in which there are shrubs and trees in the shade of which they haunt about for insects, worms, etc. The young are fed mostly on grubs and caterpillars and, sometimes, on crickets so that this bird is, decidedly, of economic value. It is a great songster and every morning, and evening, the cock pours forth its beautiful song from some point of vantage for those who have a bird-bath in their garden. It will be a regular visitor as it thoroughly enjoys a bath.

The breeding season is between March and July and the nest is placed in a hole of a tree, bank or well, under the caves of a hut or in the roof of a verandah. Roots, grass, feathers and fibres are used in the composition of the nest which is saucer shaped. The usual number of eggs is 5 and their ground-colour varies much; it may be pale sea-green, or greenish-blue, streakily blotched with brownish-red, often hiding the ground-colour, but the markings, whether few or many, are most numerous at the thick end, commonly forming a cap there. In Bihar I took a clutch which was pale greenish-blue without a single mark. The eggs measure about 0.87 by 0.66 inches.

#### 109. The Indian Shama

*Kittacincla malabarica indica* Stuart Baker

Fauna Brit. Ind., 2nd. Ed., No. 563

**Description.**— Length 11 inches, of which its tail measures 6 inches.

*Male* : Upper plumage including whole of the head and as far as the lower breast, glossy blue black; rump and above the tail, white; lower plumage, below the breast, rich chestnut, the thighs whitish, central tail feathers black, the others white on their terminal halves.

*Female* : The black of the male is replaced by slaty-brown and the lower plumage is much paler.

Bill black ; iris dark brown ; legs flesh colour. The tail is very long and greatly graduated.

**Distribution and Habits.**— A very common resident bird in the forest, secondary-growth or bamboo-jungle where it feeds much on the ground. It takes the place of the Magpie-Robin in jungle country and has even a lovelier song than that famous songster and a larger range of notes. Its song is heard during morning and evening, often until dark. It is a very favourite cage-bird on account of its beautiful song. As mentioned by Whistler it has a curious habit, especially during the breeding-season, of striking its wings together during its flight across an open space.

I have no information about its breeding in the Duars but it is likely to do so from sometime in March to June. The favourite situation for its nest is inside a bamboo-clump, in the rubbish which collects there ; but it also nests in holes in trees. The nest is a slight cup composed of dead leaves, lined with grass ; moss is, sometimes, used in its composition. The eggs number 4 or 5 and much resemble those of the Magpie-Robin. They measure about 0.85 by 0.65 inches.

## WILD LIFE OF THE DARJEELING HILLS

By

S. DUTT-MAZUMDAR, I.A.S.

The preservation of Wild Life in India has been engaging the serious attention of the Government of India. In collaboration with the State Governments and our naturalists they have

been trying to take effective steps for saving the vanishing Fauna. A Central Board for Wild Life has been constituted sometime ago and under its aegis some of the States have already formed their own State Boards. While persons interested in wild life are quite keen on adoption of proper measures for its preservation, it is however felt that such measures, when introduced, are not likely to succeed to the desired extent unless our people can be sufficiently enthused about it. Lack of knowledge and interest on the part of the great majority of our people and their apathy in this regard have indirectly encouraged poaching and indiscriminate slaughter of game birds and game-animals to such an extent that some species have disappeared altogether and some are almost on the point of extinction. Few amongst us have little idea as to how rich the fauna in India was and how rapidly it is being decimated. Much greater public interest has to be created in this direction for the purpose of effective preservation of Wild Life. The 7th of July 1955 has been observed all over India as the "Wild Life Day" and let us hope this day will be observed as such every year. I shall now endeavour to give a brief idea of the Wild Life of the Darjeeling Hills in the northern part of West Bengal.

2. The Darjeeling Hills at one time abounded in Wild Life. Conditions there were conducive to the fauna because of the advantageous natural features. The territory comprised within the district is a portion of the outlying hills of the great Himalayan range—jutting out of that part of the Himalayas known as the Sikkim Himalayas—and a tract of land lying along the base of the hills called Terai. In area the district is a little less than 1,200 square miles. The elevation varies from 200 ft. to 12,000 ft. The hill portion is a labyrinth of ridges and narrow valleys—clad in great patches of rocky forests on the crests and green masses of dense mixed forests on the slopes. The foot-hill region is dotted with belts of ever-green forests intersected by numerous hill-streams and several rivers. The diversity of elevation, climate and vegetation thus made the fauna varied and interesting. A reference to the District Gazetteer reveals that as many as 90 species of mammals and about 550

species of birds existed not even half a century ago. In bird life particularly the District was very rich as nearly one-quarter of the species of birds found in India, Burma and Ceylon were available in this district alone. It is a different story to-day. Some of the species simply do not exist. Many more are doomed to a similar fate if timely action is not taken for their survival.

3. Of the larger mammals 'Gaur' or 'Bison' inhabiting the foot-hill region is disappearing fast. Only a few can now be seen occasionally in the Sukna reserve though they were plentiful even forty years ago. I can narrate here an interesting encounter. On the 8th of May, 1922, one bull bison worked its way up to the 'Chowrasta' in Darjeeling town, an elevation of 7100 ft. He was seen gazing through the window of a house early in the morning. The inmates raised an alarm. The animal took fright and ran away killing two persons on the way. He was ultimately shot by a planter in a tea-garden near Darjeeling. The skull and the horns are still exhibited in the Darjeeling Natural History Museum. Several herds of elephants used to roam about in the large forest tracts at the foot of the hills up to 3,000 ft. Not one can be seen there to-day. Elephants are known to travel up to much higher altitude. The virgin forest of 'Rishi La' at an altitude of about 10,000 ft., which is still comparatively undisturbed, had been the favourite haunt of these mighty animals for centuries. There are permanent elephant tracks leading from 'Rishi La' to places in Duars and also in Bhutan. A herd or two, it is reported, still haunt this area during the summer months on their way to and from Bhutan. Tiger pugs have been noticed on the elephant tracks at elevations up to about 8,000 ft. Tigers are very fond of baby elephants and seem to follow the herds on these tracks in the hope of lifting one. 'Chital' or Spotted Deer—the most beautiful of all Deer species—could be seen in herds in the forest belt at the base of the hills west of the Balasan river. Hardly one can be seen to-day in that region. The Hog Deer was once plentiful in the grass land of Terai. It is now rare having been almost exterminated due mainly to the extension

of cultivation and indiscriminate netting and killing. Sambhar—the largest of all deer—could be seen all over in the plains as well as the hills up to about 3,500 ft. Only a small number now survive. Even their horns have gone back due to indiscriminate slaughter. Such is the present day condition of the larger mammals—once plentiful in the plains and foot-hill forests !

4. Animals living at higher altitudes have fared no better. The Musk Deer and 'Bharal' (Blue Sheep) used to graze in the desolate and boulder-strewn grassy highlands in the neighbourhood of Phalut (12,000 ft.) in winter. They do not come there any more and can only be seen in Sikkim three days march away to the north. The Clouded Leopard with its beautiful Tortoise-shell markings, the Marbled Cat and the Golden Cat have become rare. The same is the case with the Pangolin—undoubtedly one of the most curious animals. The Serow and the 'Goral'—two of the three existing goat-antelope species in India—are rapidly disappearing as their rocky fastnesses are being increasingly disturbed. The Pigmy Hog is no more to be met with. Of the game birds, the beautiful 'Monal' or Impeyan Pheasant, the Tragopan or Crimson-Horned Pheasant and the Blood-Pheasant—once plentiful in the Singalila Range at altitudes between 10,000 ft. and 12,000 ft. are almost on the point of extinction.

5. It is true that the natural habitats of wild animals are being steadily disturbed because of extension of cultivation and consequent reduction in the area under forests and the building of a good number of motorable roads. This possibly cannot be helped in view of the increasing human population and the urgent necessity of development in all directions. All the same, it is quite possible to create more favourable conditions in many of the existing reserved forests, that will be conducive to the preservation and growth of wild life in their natural surroundings. Needless to say that 'Poachers' will have to be ruthlessly suppressed. Some steps with an eye to conservation were taken long ago. The first sanctuary in India—the Senchal Game

Sanctuary—was set up in this region as early as in the year 1915. Three Game Associations were also organised several years ago—one for Darjeeling and two for the district of Jalpaiguri—under the co-ordinating control of the 'Game Federation of Bengal', the main object of this body being to preserve the existing fauna, in particular game animals, birds and fish of Bengal, and to introduce stable species into this area with the help and guidance of the Government Forest Department. Yet little could be done to prevent decimation of wild life in the years that followed. How long can we afford to overlook this alarming state of affairs? Let our people ponder over this question on the occasion of the 'Wild Life Day' and resolve to grant our rich and varied fauna a chance to survive.

A CATALOGUE OF PLANTS OF SIKKIM HIMALAYA

By  
B. N. GHOSE

(Continued from page 122, Vol. XXVII, No. 3, 1955)

Note: Figures in columns 4 and 5 stand for the number of the months in the year.  
In column 10, L. stands for Lepcha, Bg. for Bengali and P. for Parbatia names.

Order, Genus and Species	Habit of growth	Colour of flower	Flowering Season	Fruiting Season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
Order XI CAPPARIDAEAE CLEOME Linn.	Herbaceous to woody								
<i>C. viscosa</i> Linn.	Herbs, annual stem	yellow	...	8	Tista	Tropical	Tropical	Tropical, India & elsewhere in the world	Bg. Hurhuria
<i>C. leptophylla</i> Linn.	Hairy, annual	purple	...	...	...	...	...	West Indies, cultivated in India	

<b>CRATAEVA</b> Linn.												
<i>C. unilocularis</i> Ham. Syn. <i>C. retigiosa</i> Frost	A spreading tree	First greenish yellow, later purple	3-4	7-8	Birik, Pankhabari	2,000	Also cultivated	Malabar, Trop. Africa				
<b>GYNANDROPSIS</b> DC.												
<i>G. pentaphylla</i> DC.	Annual herb, leaves 5-foliate	White or purple	...	...	Birik Pankhabari	2,000	...	Tropical countries				
<b>CAPPARIS</b> Linn.												
<i>C. pumila</i> Champion	Erect or climbing shrub	...	...	...	...	...	...	...				
<i>C. paniculata</i> T.A. And	Shrub, often climbing	White	9	5	Tarkhola, Tista	2,000	...	Assam to China				
<i>C. multiflora</i> H. f. & T.	...	...	...	...	Tista	...	Hot valleys	...				
<i>C. olacifolia</i> H. f. & T.	Climbing shrub	White	4-5	12-3	Phadonchen, Jaldhaka, Tista	4,000-1-2,500	...	Nepal to Burma				
	Large erect thorny shrub	White	1-3	1-4 succeeding year	Tista Valley	1-2,000	...	Nepal to tropical valley of Assam				
<i>C. viminea</i> H. f. & T.	An erect large shrub	White	3-5	5-7	-do-	- do -	...	Sikkim to Tenasserim				

## SIKKIM PLANTS

Order, Genus and Species	1	2	Colour of Flower	Flowering Season	Fruiting Season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
<i>C. cathartii</i> Hemsl.		Large climber	3	4	5	6	7	8	9	10
<b>Order XIII</b>										
<b>ROYDSIA</b> Roxb.										
		Large climbing shrubs spotted white	...	...	...	...	...	...	...	...
<i>R. suaveolens</i> Roxb.		Large unthorny woody climbers	Pale Yellow sweet scented	3-6	8	Tista Trop. Valley	4,000	...	Sikkim to Bhotan	P. Kasonle lahara
<b>Order XIII</b>										
<b>VIOLACEAE</b>										
<i>VIOLA</i> Linn.		Herbaceous or woody plant	...	...	...	...	...	...	...	...
<i>V. biflora</i> Linn.		Perennial herb, stem slender 3'-12", erect	Yellow	6	8-9	Laghep Sandakphu Lochen	6-12,000	...	Sikkim to Europe	

<i>V. patrinii</i> D. C.	Root stock woody	Lilac pale blue	3	6	Sukna, Torsa	2-8,000	...	Afghanistan to Assam, Deccan
<i>V. difusa</i> Ging.	Perennial, softly hoary	Pale purple	3	6	Darjeeling, Goke Reang in fields	3-5,000	...	Nepal to Khasia, China
<i>V. sikkimensis</i> W. Bkr.	Perennial, softly hairy	...	5	...	Laghep	10,000	Damp	Sikkin
<i>V. Hookeri</i> T. Thoms	Stem & stolon short	White or very pale	6	11	Karponang Laghep Tumlong-Tongtoo	8-9,000	Wet	Sikkim-Bhutan
<i>V. distans</i> Wall.	Slender stoloniferous	Pale lilac or blue	...	...	...	5-9,000	...	Nepal to Java, Nilgiri
<i>var. proper</i>	Stipules nearly entire	...	...	...	...	...	...	...
<i>var. fimbriata</i>	Stipules lacerate	...	...	...	...	...	...	...
<i>var. acaulis</i>	Stipules fimbriate, stemless	...	...	...	...	...	...	...
<i>V. serpens</i> Wall.	Stolon or stem unusually long, leafy	Pale blue	4	5	Darjeeling in Banks	6,000	Moist	Temp Himalaya, Khasia to Burma, Deccan





## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of Flower	Flowering season	Fruiting season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<i>P. arillata</i> Ham.	Shrub	Yellow	6	9-10	Phadonchen, Darjeeling	3,000 7,000	Wet	Nepal to China, Deccan	
<i>P. triphylla</i> Ham.	Slender shrub	Pink or yellow	6	9	Chungthang	6,000	...	Simla to Khasia, Burma	
<i>P. croatalarioides</i> Ham.	Villous dwarf shrub	...	...	...	Temp. Himalayas	...	...	Chamba to Khasya	
<i>P. sibirica</i> Linn.	Slender stems rising from perennial stock	...	4-5	...	Tanka La	9,000	Wet	Punjab, Khasia, Nilgiri, Japan	
<i>P. glomerata</i> Lour.	-do-	green	...	...	Wet valley Sikkim	1-6,000	Dry	Sikkim to Khasia, Burma	
<i>S. oblongifolia</i> D. C.	Much branched annual	small pink	...	...	Subtropical	...	...	Nepal to Deccan	

## Order XVIII

## CARYOPHYLLEAE

GYPSOPHILLA Linn.

*G. cerastioides* Don Pro*Silene* Linn.*S. stracheyi* Edgew.*S. coespitella* n.sp

CUCUBALUS Linn.

*C. basciferus* Linn.

LYCHNIS Linn.

*L. apetala* Linn.

A hoary perennial	Lilac pink	7	9	Laghep, Zemu, Changu	11-12,000	Damp	Kashmir-Sikkim
Annual or perennial herb	...	...	...	...	...	...	...
Like cucubalus but glabrous	White	7	10	Zemu	12,000	Wet	Kumaon-Sikkim
6" herb	...	...	...	Lonak	12,000	...	...
A diffuse scandent herb	Greenish white	8	...	Lachung, Tonka La	8-12,000 12,000	Wet	Kashmir to Khasia, Siberia, Europe
Stem tufted, 2" 6"	...	...	...	Lhonak, Alroktchang, Ningbil	13,500	Wet	Alpine Sikkim, Arctic region

## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of Flower	Flowering Season	Fruiting Season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<i>L. nigrescens</i> Edgew.	As above, but stem mere leafy	...	7	10	Chorten nima-La, Lachen, Ningbill	11-16,000 17,000	Wet	Alpine Sikkim	
<i>L. himalayensis</i> Edgew.	Stem very slender	...	...	...	Zemu Changu	11-14,000 13,000	Wet	Sikkim Himalaya	
<i>L. brachyptala</i> Hort- <i>Berol</i>	As above, hoary	Pale red or dirty white	10	11	Lachung Lonak	11,000 12-15,000	...	Alpine Himalaya	
<i>L. multicaulis</i> Wall.	Taller than the preceding	Caly green flower large	...	...	Zemu	11,000	Wet	Kumaon to Sikkim	
<i>L. indica</i> Benth.	A tall spreading weak herb	White or brown	...	...	Lachung	8,000	Wet	Sikkim to Kashmir	
<i>L. nutans</i> Benth. CERASTIUM Linn.	Allied to the above	...	7	7	Changu Chammago	7,500 11,000	Wet	Temp. Himalaya	
<i>C. vulgatum</i> Linn.	Annual or perennial herb	...	3-7	3	Darjeeling, Baggora, Chola valley	6,000	Wet	Temp. & subalpine India & Ceylon	



## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of flower	Flowering Season	Fruiting Season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<i>S. longissima</i> Wall.	Laxly tufted, softly silky stem 6"-18", four angled	Large white	6	9	Sibru valley, Jalapahar	9-14,000 8-12,000	Rainy wet	Sikkim to Simla	
<i>S. saxatilis</i> Ham.	Stem 2'-3" tufted, cylindrical wiry	White	...	...	Gangtok Karponang	6, 7,000	Wet	Central Himalaya to Japan	
<i>S. uliginosa</i> Linn.	Annual, very variable in size and habit	...	7	9	Changu Lhonak	4-13,000	Wet	Alpine Himalaya to Khasia, Nilgiri	
<i>S. subumbellata</i> Edgew.	Stem 6", glabrous herb	...	...	...	Tanka La	12-16,000	Wet marshes	Sikkim & West Tibet	
<i>S. depauperata</i> Edgew.	Stem 3'-4" dark red brown	...	...	...	Yumthangs Changu	15,000 12,000	Moist gravelly places	Alpine Sikkim	



## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of Flower	Flowering season	Fruiting season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<i>A. musciformis</i> Wall.	Matted hard tuft	...	...	...	15-16 000 Thangu, Naku La	15-16,000	Damp	Alpine W. Tibet	
<i>A. polytrichoides</i> Edgew.	Forms hemispherical moss-like tufts	Small flower	7	10	Zemu, Lhonak, Kapup	14-15,000	Dry	Tibetan side of the Himalaya	
<i>A. monticola</i> Edgew.	Forms large subquar-rose green patches	White	6	8	Thangu	15-16,000	Wet	-do-	
<i>A. pulvinata</i> Edgew.	Subglobose tufts	...	7	9	Lhonak	15-18,000	Wet debris of rocks	Sikkim Himalaya	
<i>A. oreophila</i> Hk. f.	Stem short, forms subglobose tufts	...	7	9	...	18,000	-do-	Tibetan regions, Sikkim Himalaya	
<i>A. densissima</i> Wall.	Forming large tufts, compact	...	...	...	Lhonak, Nangma La	12,000 on cliff	Damp	Alpine Sikkim to Nepal	

<i>A. balfouriana</i> W. W. Smith	Perennial	White	...	...	Changu	12,000	Damp	...	Sikkim to Aranis- tan, Temp. Europe, Nilgiri
<i>A. orbiculata</i> Royle	Many flowered branching herb	...	7	...	The La Lhonak Ningbil	8-13,000	Damp	...	Sikkim Himalaya
<i>A. altolata</i> Edgew.	Stem 2'-3' in lase patches	Flower large solitary	7	8	Thango Chorten Nyma La	15-17,000	Damp	...	Sikkim Kashmir
<i>A. glanduligera</i> Edgew. <i>var. micrantha</i>	...	-do-	7	...	Lhonak	14,000	...	...	Sikkim Kashmir
<i>A. longissima</i> Smith	Herb 2' height	Pink	5	9	Jongsong, La Zemu	14,000	Damp	...	Sikkim
<i>A. stracheyi</i> Edgw.	Stem 1'-2'	White or yellow	7	10	8,000 Cheongthang	13,000	Damp	...	Sikkim to Ladhak
<i>A. cerastiformis</i> Williams	Herb 1'	Pink	8	10	Zemu Jelap La Lhonak	14-15,000	...	...	...
<i>A. subumbellata</i> Edgw.	Tall herb	Small flower	6	9	Jongri Sandhak- phu	14,000 12,000	Wet marshes	...	...
<i>A. kansuensis</i> Maxim	Herb-1'	"	8	8	Zemu Lonak	...	...	...	...

## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of Flower	Flowering Season	Fruiting Season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<i>A. benthami</i> Edgew.	Stem 2'-3"	White	6-7	9	Phalut Changu	10-12,000	Wet	Kumaon to Sikkim	
<i>A. melandrioides</i> Edgew.	Stem 2", branched from base	White	7	9	Ningbil	14-18,000	Wet	Sikkim Himalaya	
<i>A. debilis</i> Hk. f.	Small forms of <i>A. benthami</i>	Cymose or solitary	7	...	Chola- Lhonak	14-18,000	Wet	Alpine Sikkim	
<i>A. littlei</i> Hemsl.	Minute little plant	...	...	...	Naku La, Lhonak	16,000	Wet	Tibet	
<i>A. cerastiiformis</i> William	Herb ½"	Pink	7	...	Cherten Nyma La	16,000	Wet	...	
<i>A. thangoensis</i> W. W. Smith	Very small herb	...	7	...	Thango	13-14,000	Wet	...	
SAGINA Linn.	Herb	...	...	...	Temp. or Alpine	7-14,000	Wet	Sikkim to Tibet, temp. region of the world	

<i>S. procumbens</i> Linn.	Green	...	...	...	...	...	...	...	...	...	...	...
<b>DRYMARIA</b> Willd.												
<i>D. cordata</i> Willd.	...	4-9	12	Mangpu, Sukna	3,500 2,000	Dry	Tropical & sub- tropical Sikkim	...	...	...	...	...
<b>Order XIX</b>												
<b>PORTULACEAE</b>												
<b>PORTULACA</b> Linn.												
<i>P. oleracea</i> Linn.	Succulent herbs, annual or perennial	...	...	...	...	...	...	...	...	...	...	...
	Annual fleshy herb, leaves flat.	4-5	5-6	Rangeet	2,000 ascending to 5,000	Dry	Through- out India (all warm climate)	Bg. Bara Lanya				
<b>Order XX</b>												
<b>TAMARISCINEAE</b>												
<b>TAMARIX</b> Linn.												
<i>T. dioica</i> Roxb.	Shrub or tree	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	Kajihora Terai	1,000-1,500	Sandy beds of river	Punjab to Burma	Bg. Jhau				
<b>MYRICARIA</b> Desv.												
<i>M. germanica</i> Desv.	Fastigata shrub	...	...	Chakungchu Lachung	10,000- 15,000	Wet	Sikkim to Europe					

## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of flower	Flowering season	Fruiting season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<b>Order XXII</b>									
<b>HYPERICINEAE</b>									
<b>ASCYRUM</b> Linn.	Herbs or shrubs	...	...	...	...	...	...	...	...
<i>A. filicaule</i> Dyer	Perennial herb 3'-6"	Yellow	7	...	Lachung valley, Yak La	12,000 14,000	Wet	Temperate Sikkim	
<b>HYPERICUM</b> Linn.	Herbs or Shrubs	...	...	...	...	...	...	...	...
<i>H. griffithii</i> Hk.f. & T.	A. shrub with tender young branches	Yellow	4	9	Toorsa	3,000 6,400	...	East Himalaya	
<i>H. lysimachioides</i> Wall.	A. glabrous shrub 1-2'	1" diam yellow	...	...	...	6,500	...	Sikkim Kumaon	

<i>H. hookerianum</i> W. & A.	6'-Shrub	Golden yellow, 2" across	7	10	Singchel, Lower Chota valley	8-12,000	Wet	Sikkim to Khasia, Nilgiris	P. Mehndi Phul
var. <i>leschenantee</i>	...	...	7	9	Tungloo & Singchel	8,000 9,000	Damp	Sikkim to Java	P. Mehndi Phul
<i>H. patulum</i> Thumb.	A glabrous 1'-3' shrub	Yellow, 1" across	8	10	Darjeeling, Singchel	6,000 8,000	"	Simla to Japan	
<i>H. reptans</i> Hk. f. & T.	Shrubby, prostrate	Yellow	...	...	Phedam- chun	9-10,000	"	Temp. Himalaya	
<i>H. petiolulatum</i> Hk. f. & T.	Stem 6-15" erect slender	Yellow	7	10	Lachung, Yumthung, Laghep	9,000	"	Sikkim	
<i>H. elodeoides</i> Choisy	Stem 1'-2" stout	Yellow	7	10-12	Tungloo, Laghep	12,000	...	Simla, Burma	
<i>H. nepaulense</i> Choisy	Wiry herb	Yellow	7	...	Kalimpong, Tumlong	6-12,000	...	Kashmir, Burma, Nilgiris	
<i>H. monanthemum</i> Hk. f. & T.	Stem 4"-12", 2-edged, reddish brown	Yellow	5	8	Lachung, Zemu	13,000	Wet	Sikkim	
<i>H. japonicum</i> Thumb.	Herb-9"	Yellow	7	9	Tumlong, Sreil, Rhenok	2-5,000	...	Garhwal to Burma, Japan, New Zealand	

## SIKKIM PLANTS

Order, Genus and species	Habit of growth	Colour of Flower	Flowering season	Fruiting season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<b>Order XXIII</b>									
<b>GUTTIFERAE</b>									
<b>GARCINIA</b> Linn.	Trees with yellow juice	...	...	...	...	...	...	...	
<i>G. cova</i> Roxb.	Tree with drooping branches	Yellow with pink	2-5	5-7	...	...	...	...	Bg. Kau P. Kaphal
<i>G. tinctoria</i> Dunn. (Syn. <i>G. xanthochyamus</i> Hk. & f.)	Tree yields gum, branches drooping angular	White	3	8	Tista	1,000	Dry	East Himalaya, Sikkim to Khasia, Malaya	P. Chunyel
<i>G. cornea</i> Linn.	Tree, branches horizontal & pendulous.	...	4-6	6-9	Chamerchi	2,000 3,000	Dry	East Himalaya to Malaya	
<i>G. stipulata</i> Anders.	A tree with smooth bark	Dark or yellow	9	2	Darjeeling, Lebong	3,000 6,000	Wet	East Himalaya to Bhotan	P. Dur Lampate

<b>CALOPHYLLUM</b> Linn. <i>C. polyanthum</i> Wall.	Tree with opposite leaves	White	4-5	2-3	Tindharia, Charnarachi, Mangpu	2-4,000	Dry	Sikkim to Burma	P. Rate
<b>KAYEA</b> Wall. <i>K. floribunda</i> Wall.	Tall glabrous tree	White, edges rosey	...	...	In tropical forests	4,000	...	Sikkim to Khasia	...
<b>MESUA</b> Linn. <i>M. ferraa</i> Linn.	Middle sized glabrous tree	White	2-4	8-9	Jalpaiguri, Sukuma	2,000	...	East Himalaya to Andamans	P. Nageswar Bg. Nagkesar
<b>TERNSTROEMIA</b> Thunb. <i>E. japonica</i> Thunb. var. <i>thunburgii</i> Thunb.	Small herb	Yellowish	7-8	11	Darjeeling, Zemu	6,000	Damp	Eastern Himalaya Japan, Fiji	P. Jhingni
<i>E. symplocina</i> Blume	A slender shrub	...	12	6-8	Rishep, Phadonchur	5-1,000	...	Nepal to Java, Mishmi Hill	P. Jhingni

## Order XXIV

## TERNSTROEMIAEAE

## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of Flower	Flowering season	Fruiting season	Locality	Elevation above sea level (in feet)	Resiny or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<i>E. acuminata</i> DC.	A shrub 8-10'	...	11-2	...	Derjeeling, Siak, Jalapahar	3-7000	...	Kumaon to Bhutan, Assam to Malaya, Fiji	P. Sanu, Jhingni
<b>ACTINIDIA</b> Lindl.									
<i>A. callosa</i> Lindl.	Shrubby climber	White	5-6	11 edible	Lachen, Mansang	5,000 10,000	...	Gharwal to Japan	P. Thekiphall
<i>A. strigosa</i> Hk.f.	-do-	...	5-7	10-11 edible	Ghoompahar, Sinschal	6-9,000	...	Sikkim	P. Thekiphall
<b>SAURANJA</b> Willd.	Tree or shrub	-	...	...	...	...	...	...	...
<i>S. napauliensis</i> DC.	A middle sized tree	Pink $\frac{1}{2}$ " across	1-5	9-10	Peshok, Ari	5,7,000	...	Sikkim Bhutan Mishmi	P. Gogun
<i>S. griffithii</i> Dyer.	Shrub covered with flocculent tomentum	...	5	9	Sittong, Labdah	3,500	...	Assam	P. Gogun
<i>S. fasciculata</i> Wall.	Bush or small tree	White with pink	4-5	6	Labdah	2,400	...	...	...

<i>S. punduana</i> Wall.	Habit of <i>S. fasciculata</i>	White with pink	7	...	Rambee Lat, Labdah	3-5,000	...	Banks of streams	P. Rati Gogun
<i>S. roxburghii</i> Wall.	Shrub	White	4-5	2 edible	Kalihora, tropical	2,500	Wet	Sikkim to Khasia, Pegu	P. Aule Gogun
<b>STACHYURUS</b> Sieb & Zucc	A glabrous shrub	...	...	...	...	...	...	...	...
<i>S. himalaicus</i> Hk. f. & T.	Tree	...	4	8	Ri che La, Tonglu (in Forests)	5,000 10,000	Wet	Nepal, Bhotan	...
<b>SCHIMA</b> Reinv.	Trees evergreen	...	...	...	...	...	...	...	...
<i>S. wallichii</i> Chois.	Lofty tree	White fragrant	4-5	1-2	Mangpu, Bhalukhop, Takvar	2-5000	Wet	Nepal to Sikkim, Assam	P. Aule Chilaune
<b>GORDONIA</b> Ellis	Tree evergreen	...	...	...	...	...	...	...	...
<i>G. excelisa</i> Blm. (Syn <i>G. dipterosperma</i> Kurz.)	Small tree	Pinkish fragrant	3-5	12	Mangpu, Rishit	4-6,000	Wet	Sikkim, Bhotan, Java	P. Hinguv
<b>CAMELLIA</b> Linn.	Tree or Shrub	...	...	...	...	...	...	...	...
<i>C. thea</i> Link	Shrub 3'-6' branchlets glabrous	White	7	9	Darjeeling Terai	...	Wet	Sikkim, upper Assam, Bhotan	P. Cha

## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of Flower	Flowering season	Fruiting season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
<i>C. drupifera</i> Lour.	A shrub or small tree	White	1-2	10	Pemiandechi, Mungpong, Lopheu	7,000	...	East Himalaya, Tenna-serim, Andamans	P. Hinguwa
<b>Order XXV.</b>									
<b>DIPTEROCARPEÆ</b>									
<b>SHOREA Roxb.</b>									
<i>S. robusta</i> Gaertn.	Glabrous large tree	...	3-5	5-8	Riang, Siliguri, Mangpu	1-2,000	...	Tropical Himalaya, central India, Assam	Bg. Sal
<b>Order XXVI</b>									
<b>MALVACEÆ</b>									
<i>MALVA</i> Linn.	Herbs & shrubs	...	...	...	...	...	...	...	...
<i>M. verticillata</i> Linn.	Downy herbs	...	...	...	...	...	...	...	...
	Stem branched 2'-4'	Flowers small	6	10	Sangong, Lahsa	6-14,000	Temp. Himalaya, Sikkim, Assam	...	...



## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of Flower	Flowering season	Fruiting season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
1	2	3	4	5	6	7	8	9	10
HIBISCUS Roxb.									
<i>H. surathensis</i> Linn.	Climber	Yellow with dark centre	8-10	12-2	Terai	1,200	Tropical Asia, Africa, Australia	Beds of river	
<i>H. furcatus</i> Roxb.	Pricky shrub	Yellow with crimson centre	...	...	...	Tropical India	...	Tropical Asia, Africa, Australia	
<i>H. solandra</i> L'Her.	Slightly villous herbs	Yellow 3-8"	...	...	...	...	Weed of roadside	Kumaon, Ceylon, Burma, Africa Assam	
<i>H. fragrans</i> Roxb.	Small tree	White fragrant large	...	4	Mangpu, Dehra Dun	1,000	...	...	
<i>H. scandens</i> Roxb.	Lofty climber	White or yellow crimson centre	...	...	Tropical	2,000	...	Sikkim to Chittagong	
<i>H. pungens</i> Roxb.	Bristle annual or perennial	Yellow with purple centre 5"	...	...	Rongsong	3,000	...	Tropical Kumaon to Sikkim, Assam	

<i>H. esculentus</i> Linn.	Annual herb	Yellow crimson centre	5	9	...	...	...	Pot herb cultivated in India	Bg. Danros P. Vindoe
<i>H. rosa-sinensis</i> Linn.	Woody shrub	Red and various other colours	...	...	...	...	...	Tropical cultivated	Bg. Jaba
<i>H. mutabilis</i> Linn.	Arborescent, not prickly	White or pink	...	...	...	...	...	-do- native of China	Bg. Sthal padma
<i>H. sabdariffa</i> Linn.	The rozelle of India	Yellow	6	9	Terai	1,500	...	Cultivated in hotter parts of India, a native of Deccan	Bg. Mesta
<b>KYDIA</b> Roxb.	Tree	White or pink	2-12	9-10	Sevok Terai	1,000	...	Trop. Himalaya, Kumaon to Burma	P. Kubinde Bg. Pola
<i>K. jujubifolia</i> Griff. (syn. <i>Dicelostyles jujubifolia</i> )	Tree	White	5-6	10	Rango, Laplah	1,000	...	-do-	P. Kubinde
<b>THESPESIA</b> Corr.	Subarborescous plants	Companulate, yellow with crimson centre	8-10	1-4	Dankhabari Sidrabong	1,000 4,000	...	Tropical Himalaya, Burma, Deccan	Bg. Bankapas

## SIKKIM PLANTS

Order, Genus and Species	Habit of growth	Colour of Flower	Flowering season	Fruiting season	Locality	Elevation above sea level (in feet)	Rainy or Dry	Distribution	Local name
<b>BOMBAX</b> Linn.									
<i>B. malabaricum</i> DC.	Large tree	Red, cup-shaped 6"	1-2	4-5	Teraï	2,500	...	Tropical India, Burma, Ceylon, Japan	Bg. Simul
<b>GOSSYPIUM</b> DC.									
<i>G. herbaceum</i> Linn.	Herb or shrub	Yellow or white with purple centre	...	...	Teraï	1,000	...	Cultivated, Deccan Berar and hotter parts of India, & South America	Bg. Kapastulo
<i>G. acuminatum</i> Roxb.	Large plant	Yellow with crimson spot	...	...	...	1,000	...	...	
<b>ERIODENDRON</b> DC.									
<i>E. anfractuosum</i> DC.	Tree with prickles	Yellowish	...	...	Occasionally plated	1-2,000	...	Tropical India & South America	Bg. Swet Simal

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