

Upper D.V. e

Bihar check bet-

- 1) Lowther (L) ✓
- 2) Ball (B) ✓
- 3) Inglis (I) ✓
- 4) Law (LW) ✓
- 5) D. Ruben (R) ✓
- 6) W. Theobald ✓
- 7) Hume ✓
- 8) Jordon (J) ✓
- 9) Jamal Ara (J.A) ✓
- 10) Baillie (B) ✓
- 11) S. Barker (S.B) ✓
- 12) Sen Gpflā (S.G) ✓
- 13) Salim Ali (S.A) ✓
- 14) (C.W) ✓
- 15) Kirkpatrick (K) ~~one secondary~~
- 16) Gordon Dalgleish (G.D) ✓

Flowers of the wet place.

1. Onagraceae Trapa in Tanks (singhara).
Epilobium montanum (Mountain Willow-herb) 127
2. Polygonaceae 131 Hains 773-779, Water pepper (^{Polygonum} Polygonum hydrophyllum 778, 779) ✓
3. Primulaceae 138 (H 506, 507) Lipinachea - Wet places. ✓
4. Saxifragaceae 145
5. Adoxaceae 146 ✓
6. Droseraceae 147 Sandew (H 344) near tanks & river beds. ✓
7. Umbelliferae 149 (H 1241) Marsh Wort - Hydrocotyle near streams. Pycnocyba ✓
in grass.
8. Dipsacaceae 158 ✓
9. Campanulaceae 159 (H 503) Valerbergia in rice fields. ✓
 { 162 (H 483, 1242, 474, 475) Aster amellus (463)
 { Marsh Ragwort - (H 490) ✓
 182 Corn Sow- Thistle (H 497-498) ✓
 183 (H 494-96) ✓
10. Scrophulariaceae 191 (H 636, 37) Field Speedwell (637) 65+ ✓
11. Gramineae 209 (H 623, 622) Mimulus gracilis in rice fields in h.s. Sapat rium junceum ✓
Vanallia Drumoides; V. crustacea; V. brachiat.; V. corifolia; Sopubia delphinifolia ✓
 (H 155) oxalis; ✓
12. Boraginaceae 216 (H 581) Heliotropium sp. ✓

Cultivation
Schenki (Ageratum)

No. 130 C
17.7.1958

CUTTING OF SARNAS OR JAHIRASTHAN TREES

Ranchi, July 17- The attention of Government has been invited to the misconception prevailing in certain quarters that the officers of the Forest Department injure the feelings of the Adivasis by cutting the Sarnas or Jahirasthan trees. The Sarnas or groves of trees, which the Adivasis worship, are always left intact and no trees are allowed to be cut therein. Generally the Sarnas are excluded from demarcation, but sometimes it so happens that the Sarnas fall inside the forest, where it is not practicable to ^{exclude} ~~exclude~~ them. In such cases, whenever that area comes in for felling, according to the prescription of the working plan, a special clause is incorporated in the sale notice forbidding the cutting of trees in the Sarnas. If any specific case of the officers of the Forest Department having allowed the cutting of any tree in the Sarnas is cited, the matter will be investigated and necessary action will be taken, but Government are not aware of any such case, so far. There is no objection to the Adivasis going to the Sarnas or Jahirasthan inside the forests for the purpose of worship.

There is also some criticism to the effect that "Men from outside the State have been taking forest contracts in the district of Champaran and elsewhere". The correct position about the settlement of coupes is that whenever coupes are to be sold, they are advertised in the Bihar Gazette and the newspapers and due publicity is given in the district. A general auction is held or general tenders are called for and every body is free to attend and bid at the auction or to submit tender. The man giving the highest bid or submitting the highest offer at the tender may be from outside the State, but under the Constitution of India he cannot be debarred from taking the contract. - Press Note.

.....

- 1) Striped Rabbitt
 2) Marshall's Iora
 3) spotted Grey creeper
 4) Red spotted blue-throated (w)
 5) Red-throated thrush (w)
 6) Orange H-ground thrush
 7) little Pied flycatcher (w)
 8) White-browed Fantail fly
 9) Grey-backed shrike (w)
 10) Brown shrike (w)
 11) White-bellied Minivet
 12) Great Red Warbler (w)
 13) Plyth's Red Warbler (w)
 14) Franklin's Wren Warbler
 15) Rufous-fronted W. Warbler
 16) Thick-billed Warbler (w)
 17) Seynes's tree Warbler (w)
 18) E. Orphean Warbler (w)
 19) Brown Willow Warbler (w)
 20) Dusky Willow Warbler (w)
 21) Humm's W. Warbler (w)
 22) Tinnell's fly Warbler (w)
 23) Jungle Wren Warbler
 24) Black-naped Oriole (w)
 25) Black-throated Baya
 26) crested Bunting
 27) Cliff Swallow
 28) Red-rumped Swallow
 29) ~~White-headed Wagtail~~ (w)
 30) Black-headed Wagtail (w)
 31) yellow-headed Wagtail (w)
 32) Roan Pipit (w)
 33) Richard's pipit (w)
 34) Short-toed Lark (w)
 35) Bush Lark

- 36) Red-winged Lark
 37) Rufous-tailed Lark
 38) Thick-billed flowerpecker
 39) Pigmy wood pecker
 40) Ash-backed W. pecker
 41) Tinnell's G.B. W. pecker
 42) Wrenwren (w)
 43) Cuckoo
 44) Plaintive Cuckoo
 45) Drongo cuckoo
 46) Large green-billed Malkoha
 47) six-keen cuckoo
 48) White-rumped spintail
 49) Crested Swift
 50) Jungle night-jar
 51) Franklin's N. jar
 52) Dusky Horned owl
 53) Collared Scops owl
 54) Jungle owl
 55) Brown Hawk owl
 56) Griffon Vulture
 57) Long-billed Vulture
 58) Great spotted eagle (w)
 59) small spotted eagle
 60) Montagu's Harrier (w)
 61) Hen Harrier (w)
 62) Pied " (w)
 63) Marsh " (w)
 64) crested honey buzzard
 65) O. breasted G. pigeon
 66) little brown dove
 67) Painted Sandpiper
 68) Painted spurfowl
 69) McWitt's bush quail
 70) Common crane (w)
 71) Brown-headed gull (w)
 72) White-winged black tern (w)

- 73) Marsh-billed Cuckoo
 74) spin-winged Plover
 75) Gray-headed Lapwing (w)
 76) Red shank (w)
 77) shag
 78) Purple Heron
 79) Little Green Heron
 80) Chestnut Bittern
 81) spot-bill
 82) Gadwall (w)
 83) Pintail (w)
 84) shoveller (w)
 85) Red-headed Pochard (w)
 86) sm. lo (w)
 87) small egret

Winter visitors - 37

R = 50

Crows, Tree pie - Grey tit - Babbler - Common lora - J. chloropsis - bulbul -
Robin + Magpie - Shama - flycatcher - shrike - Minivet - Oriole - Torongo -
+ tailor bird - Ashy wren warbler - Jungle w. warbler - Hill myna + other mynas -
Baya - Munias - Rose finch - sparrow - Swallow - Wagtail - Lark - Sunbird
Woodpecker - Parakeet - ~~Cuckoo~~ Cuckoo - Parakeet - Roller - Rice-eater -
Kingfisher - Hornbill - Hoopoe - Swift - Night-jar - Owl - Vulture -
~~Vulture~~ Kite - Shrike - Pigeon + Dove - Snipe - Stork - Egret - Heron
Duck - Grebe -

Perching Birds: - ORDER PASSERIFORMES - Sparrow-like Birds

This order is by far the largest, containing nearly half the birds of the world.

Upper Damodar Valley

1. Striated Babbler
2. Quaker Babbler
3. Marshall's Iora - Coloured
4. Spotted Grey Creeper
- W 5. Red-spotted Bluethroat - Coloured
- W 6. Red-throated Thrush
- W 7. Little Pied Flycatcher btw.
- W 8. Blue-throated Flycatcher - Coloured
9. Brown Flycatcher
10. White-browed Fantail Flycatcher - Coloured
- W 11. Greybacked Shrike
- W 12. Brown Shrike
13. Short-billed Minivet
14. White-bellied Minivet - Coloured
15. Grey Drongo
- W 16. Great Reed Warbler
- W 17. Blyth's Reed Warbler
18. Franklin's Wren Warbler
19. Rufous-fronted Wren Warbler - Coloured
- W 20. Thick-billed Warbler
- W 21. Sykes's Tree Warbler
- W 22. Eastern Orphean Warbler - Coloured
- W 23. Dusky Willow Warbler
- W 24. Hume's Willow Warbler
- W 25. Tuckell's Flycatcher - Warbler
26. Jungle Wren Warbler - btw
- W 29. Black-rumped Oriole - Coloured
30. Black-throated Baya - Coloured
31. Cliff Swallow
32. Red-rumped Swallow - Coloured
- W 33. Rock Pipit (?)
- W 34. Short-toed Lark
35. Bushlark
36. Redwinged Lark - Coloured
37. Rufous-tailed Finch-Lark
38. Thick-billed Flowerpecker
39. Pigmy Woodpecker - btw
40. Black-backed Woodpecker - Coloured
41. Tuckell's Golden-backed Woodpecker
- W 42. Wrenneck - btw
43. Plaintive Cuckoo
44. Drongo Cuckoo
45. Large Green-billed Malkoha } Call
→ Coloured
46. Sirkeer
47. White-rumped spinetail

48. Crested Swift - Coloured - frontispiece
49. Jungle Nightjar
50. Franklin's Nightjar
51. Dusky Horned Owl
52. Collared Scops owl
53. Brown Hawk Owl
54. Griffon Vulture - btw
- W 55. Great Spotted Eagle - btw
56. Small spotted Eagle
- W 57. Montagu's Harrier - ~~btw~~
- W 58. Hen Harrier
- W 59. Pie Harrier - Coloured
- W 60. Marsh Harrier
61. Crested Honey Buzzard - btw
62. Orange-breasted Green Pigeon - Coloured
63. Little Brown Dove - Coloured
64. Painted Sandpiper - Coloured
65. Painted Sparrow - Coloured
66. Blewitt's Bush-quail
- W 67. Brown-headed Gull - Coloured
- W 68. White-winged Black Tern - btw
69. Black-bellied Tern - btw
70. Spar-winged Plover
- W 71. Grey-headed Lapwing - btw
- W 72. Redshank - btw
73. Shag - btw
74. Purple Heron - Coloured
75. Small Egret
76. Little Green Heron or bitia
77. Chestnut bitia - Coloured
78. Spotted
- W 79. Gadwall
- W 80. Pintail - btw white
- W 81. Shoveller
- W 82. Red-crested Pochard - Coloured
- W 83. Snew - btw.

49 R.

23 Coloured plates

15 btw white

← 7 Coloured plates

W.V. 32 ||

R. 51 ||

C . S . M . D . S . P . S . G . P . M . S . P . B . H . R . M . S . P .

T = S.R. Tickell (1833-1842)

B = Vincent Ball (18

J = Jerdon

J = Inglis

D.R. = Rueben, Justice

R.R. = Ray Rueben

L = S.C. Law

Low = Lowther

Alle = Baillie

O = Common birds Salin

O = Hill birds Salin

Spotted Crane - Eringuri Khairi (Beng)
White breasted Wren - Bawal
Moorhen - Jal-murghi
Coot - Dasari
Wales Cock - Kora
Sarus Crane - Sarus
Common Crane - Kulliyog
White Crane - Karthur
Demiselle Crane - Kar Karra
Great Bustard - Hukna
Bergal Florian - Charas
Lesser Florian - Likh
Little Bustard - Chota Titar
Common Sand Grouse - Bhat-titar
Painted Sand Grouse - Pahari Bhat-titar
Red Jungle fowl - Jungle morghi
Red spur fowl - Chota jungle morghi
Nepal Kalki - Rechabo - Ghuhia
Grey Partridge - Titar
Swamp Partridge - Bhal-titar
Black Partridge - Kala titar
Jungle Bush Quail - Lowa, Tukan
Blue winged painted B. Quail - Sirsi Lowa
Common Quail - Bats
Rain Quail - Chota Bats
Little button Quail - Dabki

Mallard - Nil-sir
Spotted-bill - Garm-pai
 Gadwall - Mida
 Pintail - Sukh-pai
 Shoveller - Tidan
 Green-winged Teal - Lokya Kena
 Wigeon - Peason
 Pink-headed duck - Gotabish
 Common Pochard - Buran-nan
 White-eyed Pochard - Karchiya
 Tufted Pochard - Ablac
 Red-crested Pochard - Lal-Chonch
 Ganganey
 Comb duck - Nukka chaitwa - Gima
 Cotton Teal - Girmi
 Ruddy sheldrake - Chakwa
 Common sheldrake - Shah-Chakwa
 Small Whistling Teal - Silli
 Large Whistling - Burma silli
 Bar-headed Goose - Kareji Hans
 Grey-lag Goose - Sona Hans
 Common snipe - Chaha
 Jack snipe - Chota Chaha
 Woodcock - Shintilan
 Pintail snipe - Kone - (Kot)
 Black-tailed Godwit - Gudera
 Green Shank - Tim-timma
 Golden Plover - Bagan

1. Jungle Crow ✓
2. House Crow ✓
3. Tree pie ✓
4. Grey Tit ✓
5. yellow Cheeked Tit ✓
6. Velvet-fronted Nuthatch ✓
7. Jungle Babbler ✓
8. Striated Babbler ✓
9. Common Babbler ✓
10. Rufous bellied Babbler ✓
11. yellow-eyed Babbler ✓
12. spotted Babbler ✓
13. Quaker Babbler ✓
14. Common Iora ✓
15. Marshall's Iora ✓
16. Gold fronted Chloropsis ✓
17. Jerdon's Chloropsis ✓
18. Red Vented Bulbul ✓
19. Red Whiskered Bulbul ✓
20. White-browed Bulbul ✓
21. spotted grey creepers ✓
22. P. Stone Chat ✓
23. C. Bush Chat (w) ✓
24. Red start- (w) ✓
25. Red spotted Blue throat- (w) ✓
26. Indian Robin ✓
27. Mag pie Robin ✓
28. Shama ✓
29. Red throated Thrush (w) ✓
30. Orange headed ground thrush ✓
31. Blue Rock Thrush (w) ✓
32. Red breasted flycatcher (w) ✓
33. White browed blue flycatcher (w) ✓
34. Little Pied flycatcher (w) ✓
35. Blue throated flycatcher (w) ✓
36. Tickell's blue flycatcher ✓
37. Verditer flycatcher - (w) ✓
38. Brown flycatcher ✓
39. Grey headed flycatcher - (w) ✓
40. Paradise flycatcher ✓
41. Black naped blue flycatcher ✓
42. W. browed Fantail flycatcher ✓
43. White spotted F-tail flycatcher ✓
44. Grey shrike ✓
45. Bay backed shrike ✓
46. Black headed shrike ✓
47. Rufous backed shrike ✓
48. Grey backed shrike (w) ✓
49. Brown shrike (w) ✓

50. Wood shrike ✓
51. Scarlet Minivet ✓
52. Short-billed Minivet ✓
53. Small Minivet ✓
54. White-bellied Minivet ✓
55. Black headed Cuckoo shrike ✓
56. Large Cuckoo shrike ✓
57. Ashy Swallow shrike ✓
58. Black Drongo ✓
59. Grey & Drongo ✓
60. White-bellied Drongo ✓
61. d. Rachel-tailed Drongo ✓
62. Great Reed Warbler (w) ✓
63. Blyth's Reed Warbler (w) ✓
64. Tailor Bird ✓
65. streaked Fantail Warbler ✓
66. Franklin's Wren Warbler ✓
67. Rufous-fronted Wren Warbler ✓
68. Thick billed Warbler (w) ✓
69. Sykes's Tree Warbler (w) ✓
70. E. Orphan Warbler (w) ✓
71. Tickell's Willow Warbler (w) ✓
72. Brown Willow Warbler (w) ✓
73. Dusky Willow Warbler (w) ✓
74. Hume's W. Warbler (w) ✓
75. Tickell's flycatcher Warbler (w) ✓
76. Ashy W. Warbler ✓
77. Jungle W. Warbler ✓
78. Indian W. Warbler ✓
79. Indian Oriole ✓
80. Black naped Oriole (w) ✓
81. B. headed Oriole ✓
82. Grey headed Myra ✓
83. Black headed Myra ✓
84. Common Myra ✓
85. Bank Myra ✓
86. Jungle Myra ✓
87. Pied Myra ✓
88. Baya ✓
89. Black throated Baya ✓
90. White backed Munia ✓
91. White throated Munia ✓
92. spotted Munia ✓
93. Red Munia ✓
94. Rose Finch (w) ✓
95. yellow throated sparrow ✓
96. House sparrow ✓
97. Crested Bunting ✓
98. Dusky Crag Martin ✓
99. Common Swallow (w) ✓
100. Wire tailed Swallow ✓

101. Cliff Swallow -
102. Red rumped Swallow
103. White Wagtail (w, X) ✓ ○
104. d. Pied Wagtail ✓ ○
105. E. grey Wagtail (w, X) ✓ ○
106. Blue headed Wagtail (w, X) ✓ ○
107. Black headed Wagtail (w, X) ✓ ○
108. yellow headed Wagtail (w, X) ✓ ○
109. J. Tree pipit (w, X) ✓ ○
110. Rock Pipit - (w, X) ?
111. Richard's Pipit - (w, X) ✓ ○
112. Indian Pipit - ✓ ○
113. Gray Lark ✓ ○
114. short-billed Lark (w, X) ✓ ○
115. Bush Lark ✓ ○
116. Red-winged Lark ✓ ○
117. Rufous-tailed Finch Lark ✓ ○
118. Ash-crowned F. Lark ✓ ○
119. White eye ✓ ○
120. Purple Sunbird ✓ ○
121. Purple Rumped Sunbird ✓ ○
122. Tickell's flower pecker ✓ ○
123. Thick-billed flower pecker ✓ ○
124. Pitta ✓ ○
125. Little ~~sealy~~ Sealy bellied flycatcher ✓ ○
126. Marhatta W pecker ✓ ○
127. Pigmy W pecker ✓ ○
128. Golden backed W pecker ✓ ○
129. Black backed W pecker ✓ ○
130. Tickell's f.b. W pecker ✓ ○
131. Wren (w, X) ✓ ○
132. N. green Barbet ✓ ○
133. C. B. Barbet ✓ ○
134. Cuckoo (w, X) ✓ ○
135. Indian Cuckoo ✓ ○
136. Papika ✓ ○
137. Plain tire Cuckoo ✓ ○
138. Drong Cuckoo ✓ ○
139. Pied C. Cuckoo ✓ ○
140. Koel ✓ ○
141. Large q. billed Malkoha ✓ ○
142. Silver Cuckoo ✓ ○
143. Cuckoo ✓ ○
144. d. l. Parakeet ✓ ○
145. Rose Ringed Parakeet ✓ ○
146. B. H. Parakeet ✓ ○
147. Indian Roller ✓ ○
148. Green Bee-eater ✓ ○
149. Blue T. Bee-eater ✓ ○
150. Blue bearded B. Eater ✓ ○

- 2
151. Pied n. fisher ✓ ○
 152. Common n. fisher ✓ ○
 153. Stark billed n. fisher ✓ ○
 154. W. breasted n. fisher ✓ ○
 155. Grey Hornbill ✓ ○
 156. Hoopoe ✓ ○
 157. House Swift - ✓ ○
 158. Palm Swift - ✓ ○
 159. White-rumped spintail ✓ ○
 160. Crested Swift - ✓ ○
 161. Long tailed Night-gar ✓ ○
 162. Jungle Night-gar ✓ ○
 163. Franklin's Ngar ✓ ○
 164. Indian Ngar ✓ ○
 165. Indian Barn owl ✓ ○
 166. Brown fish owl ✓ ○
 167. Great Horned Owl ✓ ○
 168. Dusky Horned Owl ✓ ○
 169. Collared Scops owl ✓ ○
 170. Spotted Owl-let ✓ ○
 171. Jungle Owl-let ✓ ○
 172. Brown Hawk Owl ✓ ○
 173. Osprey (w, X) ✓ ○
 174. Pondichery Vulture ✓ ○
 175. Griffon Vulture ✓ ○
 176. Long billed Vulture ✓ ○
 177. White backed Vulture ✓ ○
 178. Seaverge Vulture ✓ ○
 179. Peregrine Falcon (w, X) ✓ ○
 180. Laggar Falcon ✓ ○
 181. Hobby (w, X) ✓ ○
 182. Red headed Merlin ✓ ○
 183. Kestrel (w, X) ✓ ○
 184. Tawny Eagle ✓ ○
 185. Great spotted Eagle (w, X) ✓ ○
 186. Small spotted Eagle ✓ ○
 187. Bonnell's Eagle ✓ ○
 188. Crested H. Eagle ✓ ○
 189. Short-billed Eagle ✓ ○
 190. Crested Serpent Eagle ✓ ○
 191. White-eyed Buzzard Eagle ✓ ○
 192. Pallas's ~~F~~ Fishing Eagle ✓ ○
 193. Brahminy Kite ✓ ○
 194. Pariah Kite ✓ ○
 195. Black-winged Kite ✓ ○
 196. Pale Harrier (w, X) ✓ ○
 197. Montagu's Harrier (w, X) ✓ ○
 198. Hen Harrier (w, X) ✓ ○

- 199. Pied Hamier (w)
- 200. Marsh Hamier (w) x
- 201. Shikra ✓ ○
- 202. Crested Honey Buzzard
- 203. Green Pigeon ✓ ○
- 204. Orange breasted Pigeon
- 205. Emerald Dove ✓ ○
- 206. Blue Rock Pigeon ✓ ○
- 207. Rufous T. Dove ✓ ○
- 208. Spotted Dove ✓ ○
- 209. Little Brown Dove
- 210. Ring Dove ✓ ○
- 211. Red T. Dove ✓ ○
- 212. Painted Sandgrouse
- 213. Common Sandgrouse ✓ ○
- 214. Pea fowl ✓ ○
- 215. Red Jungle fowl ✓ ○
- 216. Red spur fowl ✓ ○
- 217. Painted spur fowl
- 218. Grey Quail ✓ ○
- 219. Jungle bush Quail ✓ ○
- 220. Blunth's Bush Quail
- 221. Black Partridge ✓ ○
- 222. Painted Partridge ✓ ○
- 223. Grey Partridge ✓ ○
- 224. Bustard Quail ✓ ○
- 225. White breasted Whin ✓ ○
- 226. Moor hen ✓ ○
- 227. Coot ✓ ○
- 228. Bronze winged Jacana ✓ ○
- 229. Pheasant tailed Jacana ✓ ○
- 230. Painted snipe ✓ ○
- 231. Common Crane (w) ✓ ○
- 232. Lesser Grebe ✓ ○
- 233. Stone Curlew ✓ ○
- 234. Indian Courser ✓ ○
- 235. Brown headed gull (w)
- 236. Whiskered Tern ✓ ○
- 237. White-winged Black Tern (w)
- 238. River Tern ✓ ○
- 239. Black bellied Tern
- 240. Little Ringed Plover ✓ ○
- 241. spur winged Plover
- 242. Red Wattled Lapwing ✓ ○
- 243. Yellow " Lapwing ✓ ○

- 3
- 245. Grey headed Lapwing (w)
 - 246. Wood Sandpiper (w) ✓ ○
 - 247. Red Shank (w)
 - 248. Fantail snipe (w) ✓ ○
 - 249. Shag
 - 250. Little Cormorant ✓ ○
 - 251. Snake Bird ✓ ○
 - 252. White Ibis ✓ ○
 - 253. Black Ibis ✓ ○
 - 254. White-necked stork ✓ ○
 - 255. Aquila stork ✓ ○
 - 256. open bill ✓ ○
 - 257. Purple Heron
 - 258. Grey Heron ✓ ○
 - 259. Small Egret
 - 260. Little Egret ✓ ○
 - 261. Cattle Egret ✓ ○
 - 262. Pond Heron ✓ ○
 - 263. Little green Heron
 - 264. Night-Heron ✓ ○
 - 265. Chestnut Bittern
 - 266. Cotton Teal ✓ ○
 - 267. Whistling teal ✓ ~~omit~~ ○
 - 268. Spot-bill
 - 269. Gadwall (w)
 - 270. Pintail (w)
 - 271. Blue winged teal (w) ✓ ○
 - 272. Shoveler (w)
 - 273. Red Crested Pochard (w)
 - 274. Smew (w)
 - 275. Little Grebe ✓ ○

Total — 275
 159 Omit
 116
 29
 87

116
 87
 29

87
 29
 116

R. B. flycatcher - Tircha - (M)
C. B. baird - kathikhuti. (M)
Green willow warbler - Mulhan - ore - (M)
Hoopoe - Dagnachcha (M)

unclassified - UPV

- ① *Dumetia hyperythra*
- ② *Hypolais nama*
- ③ *Sylvia hortensis*

Order PASSERES

Family CORVIDAE

Crows and Treepies.

The crows are birds of large size, usually black or pied with brown. The crows and their allies are birds of large size and robust form. They have black plumage throughout. They have long, straight and strong bill, slightly curved at the end. Feet strong and claws well curved; wings long, somewhat pointed. They fly well and walk with ease. Most of them are omnivorous, and can live on all kinds of food. They are intelligent, ~~and~~ clever, ~~and~~ bold.

The Jungle Crow (*Corvus macrorhynchos*) local name Kaa.

Identification: - Length: - 18" sexes alike. Glossy jet black bird, without any grey on hind neck and breast; legs black; and heavy black bill.

General Habits: - The Jungle Crow is found throughout India. It is ^{occurs} found in towns and cities as well as in forested areas. It is resident wherever found but locally migratory. Like the rest of ^{its} tribe, however, it will take any kind of food; it is very destructive of the young and eggs of other birds. It ~~is~~ often of ~~the~~ damage cultivation, particularly maize and paddy. It is very fond of small flowers and all kinds of figs and fruits. Otherwise neutral. The voice is deep and harsh kaa or kaag.

Breeding: - It breeds, according to the locality, from March to June, but may start as early as December. Nest is a well made cup of twigs mixed with leaves, moss etc, lined with hair, dry grass or wool, generally placed high up in a tree. The eggs are 3-4 in number, dull green, ~~with~~ spotted with brown. Both parents ~~share~~ ^{share} building, incubation and ~~care~~ care of the young.

The House Crow (*Corvus splendens*) Kawa.

Identification: - Length: - 17" sexes alike. A black bird, with the crown, upper back and breast grey. Bill and legs black.

General Habits:

Fam - Paridae

The Paridae have ^{The Tits} the nostrils concealed with feathers, the bill is short and stout, feet very strong, but the wing is weak and rounded, due to which the power of flight ~~is~~ are limited.

Fam - Sittidae
The Nuthatches

The sexes are not alike, the feet are very strong suited for climbing on branches of trees, the bill is long, ~~is~~ and straight, the wing long and pointed, the tail short and square which is frequently used as a ~~is~~ support ~~is~~ while climbing upward.

Fam - Timaliidae

^{The Rabblers, Ioras and Chloropsis.}
Gregarious plain coloured birds with lax plumage; ~~is~~ hopping on the ground, legs strong and big, wings short and rounded, tail generally large and graduated, flight-weak.

Fam - Pycnonotidae

^{The Bulbuls.}
Generally small birds, with crest on the head; plumage usually green, brown and yellow with markings; usually in forests but a few in garden too; bill short and straight; fly well and are cheerful birds.

Fam - Certhiidae

^{The Creepers}
General colour black or dark grey with spots and bars; wing long and pointed; ~~is~~ feet very long and strong with long toes; tail nearly square; quick and active in movements; behaving like the Sittidae on trees, when it creeps, flight swift.

Fam - Turdidae

chats, Robins, ~~and~~ Thrushes, blue and Ruby throats and Redstarts.
Family characters not separable in the field, but individual birds very easily recognizable from descriptions. long legged hoppers with contrasting gay colours; bill short and straight; picking most of their foods on the ground, earth.

Fam - Muscicapidae

^{The Flycatchers}
small gaily coloured birds; bill wide and hooked; wings ~~is~~ medium sized, suitable only for short and rapid flights; legs and feet weak, ~~is~~ meant only for pecking; ~~is~~ hauls insects in the air from a perch returning to it.

Fam - Laniidae

^{The Shrikes}
Plain and sober coloured birds, generally having only black, grey, in fous ~~is~~ and white; bill strong and hooked; feet short and

strong; a black streak through the eyes; ~~pass~~ pounce on their prey on the ground from a perch; some of them impale their prey on thorns.

Fam - Perisoreptidae

The Minivets and Cuckoo shrike
The minivets are brightly coloured birds with red and yellow, sexes different; bill strong and hooked; wing long and pointed; tail long and graduated; feet weak; the cuckoo shrike on the other hand are grey birds with the sexes alike; the entire family is arboreal.

Fam - Artamidae

The Ashy Swallow shrike
Birds of sober grey plumage; bill short and slightly curved; wings long and powerful; tail short and square, often forked.

Fam - Dicruridae

The Drongos
Plumage almost always ~~to~~ glossy black; tail long and forked; wings long and pointed; flight strong and fast; singers or mimics; in some the tail is remarkably developed.

Fam - Sylviidae

The Wattle and Willow Wattle
Small size with plain plumage; wings moderate ~~and~~ or long; tail moderate or short; mostly insectivorous; bill slender; creeping among bushes and hedges in search of insects; the Willow Wattle however spent most of their time ~~at~~ high up on tall trees, moving about restlessly; ~~are~~ mostly winter visitors.

Fam - Oriolidae

The Orioles
Bright yellow birds with varying amounts of black; bill long and slightly curved; feet small; tail short; wings long; completely arboreal.

Fam - Struthionidae

The ~~Mourner~~ Myras
Moderate size varying widely in plumage; straight-pointed bills; wings long and pointed, flying well; tail moderate ~~and~~ short; ~~are~~ mostly walk on the ground; often gregarious; make very good pets.

Fam - Ploceidae

Bayas and Munias
Small birds; bill strong slightly and conical; wings rounded; tail short; legs strong; gregarious. The bayas ~~make~~ weave bottle shaped nests and get their ~~at~~ their food on trees? The munias spend most of their time on the ground in the shade of trees, when ~~the~~ all fly away ~~to~~ together when disturbed.

Fam - Fringillidae

Sparrows, buntings and finches
Plumage plain; bill stout and strong, seed crushing;

tail
Wings moderate; feet suitable for ³ walking on the ground or perching; generally ~~are~~ gregarious and some show a marked preference for human habitation.

Fam - Hirundinidae
martins and swallows

Plumage blue or sober; bill short and broad at the base; wings long and pointed, capable of very strong flight; feet weak; insectivorous; spent most of the time in the air hawking insects. Migrants assemble in large flocks before migrating; can be seen perched on T. wires.

Fam - Motacillidae
wagtails and Pipits

Plumage black & white or sober; bill slender and straight; wings long and pointed; flight - strong, rapid and dipping; gregarious; tail long and is always wagged; more in the Wagtails; ground feeders mostly on insects.

Fam - Alaudidae

Plumage brown; ^{Lark} size small; bill long and slender; wings broad; flight - strong or hovering; feet well developed; run well; generally crested; very good singers.

Fam - Zosteropidae
The White eye

Small rest-less bird moving all the time amongst trees in search of insects, calling all the while; white ring round the eye; bill slender and small, wing long; tail short; go about in parties.

Fam - Nectariniidae
The ~~sun~~ Sunbirds

Brightly coloured small birds, with long, thin sword like bills slightly curved at the end; wings moderate & rounded; sexes not alike; completely arboreal; feeding on nectar of flowers and small insects by clipping their long bills.

Fam - Dicaeidae
The Flower peckers

Smallest of all Indian birds; sober plumage; bill short & thick; wings long; practically tailless; completely arboreal & insectivorous.

Fam - Pittidae

^{The Pittas}
Very multi-coloured birds with small tails; legs long & strong; bill pointed; feeding ~~is~~ entirely on the ground ~~but~~ but calling from perches; shy.

~~Fam~~ ORDER - Coraciiformes
Fam - Picidae

Woodpeckers & Wrynecks

Generally brightly plumaged birds of different sizes; bill long, straight and wedge like; wings long and broad; tail graduated and wedge shaped, used as ~~support~~ support in climbing trunks of trees;

climb well upwards with ^{great} ease; insectivorous, ~~ob~~ obtaining their food by tapping at the bark and then digging; flight - strong and jerky.

Fam - Caprimidae
The Barbets

Generally green birds of moderate size; bill stout and conical; wings and tail short; whirring flight; monotonous call; hammer on trees like the woodpeckers for food.

Fam - Cuculidae
Cuckoos, Malkohas ^{Voets} and Coucals.

Large birds of sober hues; two groups, one arboreal and parasitic, the other terrestrial and not-parasitic; bills slender and curved tail long and broad; powers of flight - in the parasitic group well developed; all have very distinctive calls and are more easily recognisable by them than by sight.

Fam - Pittidae
The Parakeets

Moderately sized green plumaged birds; entirely arboreal; deep red strongly hooked bills; wings long; tail variable but usually long and graduated; flight - very swift and arrow like; calls harsh but can imitate the human voice and make good pets; very destructive food habits.

Fam - Coraciidae
The rollers

Large sized birds with rich blue colours in the wings visible only in flight; bill rather long, strong and hooked; wings long and rounded; tail various; ~~fast~~ flight - fast, even and rolling; catch their prey both in the air and on the ground. Noisy.

Fam - Meropidae
The Bee-eaters

Predominantly green birds with blue, yellow or chestnut; bill long, slender and slightly curved, sharp, ~~and~~ pointed; wing long and pointed; tail moderate or long; legs and feet weak; flight - strong, ~~how~~ hawks insects on the wing.

Fam - Alcedinidae
The Kingfishers

Moderate birds brightly coloured; bill very long, stout and angular; wings moderate and rounded; legs weak; hunt from perches or flying over water and diving, some capable of hovering; flight - rapid; calls harsh and noisy; nests in long burrows on banks of water.

Fam - Bucerotidae
The Hornbills

Large birds with enormous curved bills and a Casque on the upper mandible; wings short and rounded; tail long; flight - laboured & noisy; nests in trees by plastering up holes.

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Fam - Icthyophidae
The Hoopoes

Zebra Coloured birds; bill long & slender, sword like, forming a pickaxe with closed crest; expanded crest fan like; wings rounded; tail long; ground feeders; nests in holes anywhere.

Fam - Micropididae

The Swifts and Spinetails

Gregarious small birds; bill very small and hooked; wings long; capable of very fast and sustained flights, some of them spending the whole day in the air; fastest bird in the world; rarely perch but roost against rocks, buildings or trees hanging on by their sharp claws. ~~to~~ builds plastered nests.

Fam - Caprimulgidae

The Night-gans

Plumage generally barred; bill small, weak and flexible; wings tail long; perched along branches; flight - swift and silent; all have distinct calls and are more easily recognized by them; + night feeders, not usually seen during the day; they lay eggs on the ground.

Fam - Tytonidae

The Barn Owl

Plumage mottled; head very large; disk occupying the whole face; wings long, tail short; bill straight and compressed; legs long; flight - fast and silent; nocturnal; nests in holes.

Fam - Asionidae

The Owls and Owllets

Plumage mottled; head large with two plumes of lengthened feathers; bill short, strong and curved. Wings long; tail medium; this owl has no plumes on the head; nocturnal but less than the tytonidae; easily recognized by calls; nests in holes of trees and walls.

FAM - ORDER - Accipitres

Fam - Pandionidae

The Osprey

General plumage white; large bird; bill moderate with a long and hooked tip; wings very long and pointed; tail square; captures fish by open diving under water; feet, toes and claws very strong, the claws curved.

Fam - Aegypiidae

The Vultures

Large birds of dark plumage; bill large, thick and strong, hooked at the tip; head and upper part of neck naked; wings long and rounded; soaring flight - on motionless wings to great heights; scavengers and when full have difficulty in flying; breed on high rocky cliffs or tops of tall trees.

Fam - ⁶Falconidae
The Falcons, Kestrels, Eagles, Hawks, ~~and~~ kites, Hawks
and buzzards.

Plumage and size various; bill short and compressed with a
sharp, curved tip; wings long and pointed; tail various;
head and neck always feathered; legs strong with long
sharp and curved claws; fly fast and catch their
victim on the wings; breed in trees or on rocks and building.

ORDER - Columbace

Fam - Columbidae

The Pigeons, ~~and~~ and doves.

Size and plumage various; bill weak and swollen at the ends; wings
long and pointed; flight fast and straight; contain both arboreal
and terrestrial birds; nest a flimsy flat firm of twigs with eggs
often visible from below.

ORDER - Pterocletes

Fam - Pteroclididae

The Sandgrouse

Handsome plumaged birds; frequenting large plains and deserts;
gregarious; bill small and feet; wings long and pointed; legs small;
run and fly well; terrestrial; egg ~~are~~ laid on the ground or
in small cups.

ORDER - Gallinae

Fam - Phasianidae

Pea fowls, Jungle fowls, Bush Quails and Partridges

Sizes and plumage various, ~~the~~ bill longish; tail short; legs strong;
live on the ground but roost ~~in~~ on trees; lay eggs on the
ground.

ORDER - Hemipodii

Fam - Turnicidae

Bustard Quails

Plumage and size various; but the females larger than the males,
and the dominant partners; live in grass land and prefer
running ~~to~~ flying; flight fast and whirring; ground feeders;
lay eggs ~~in~~ in hollows lined with grass & leaves on the ground.

ORDER - Grallae

Fam - Rallidae

The Water Hens, Moorhens & Coot

Aquatic birds, spending most of the time on open water; size and plumage
various; ~~the~~ bill moderate; legs long and strong; swim and walk
well; nesting on water, the nest being floating.

Fam - Jacanidae

The Jacanas

Large birds, frequenting marshes and water; head small; bill long,
straight and compressed, curved at the tip; tail short; wings square;
very long legs and toes; walk ~~freely~~ on land and water; female bigger
than the male; floating nests on water & weeds.

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Fam - Rostratulidae
Painted Snipes

Muddy Multi Coloured birds with bars; bill long, slender, & slightly curved at the tip; wings short and broad; fly ~~not~~ fast; long legs; males smaller than the females; nests is a pad of grass near water.

Fam - Gruidae
Cranes and ~~Floricans~~

The cranes are very large birds; with long legs and necks, but a small head and bill; waders; fly in V formations; feeds on grains in fields.

Fam - Otidiidae
The Floricans

Medium sized birds with a short crest; bill small short; legs moderate with broad soles; visits cultivated fields and grasslands; flight with ~~rapid~~ rapid wing beats; breeds on the bare ground.

ORDER - Charadriiformes

Fam - Oediemidae
The Stone Plovers

Plumage and size various; bill short, stout and straight; wing long and pointed; thick knees; breeds on the bare grounds; found in rocky ~~countries~~ Country.

Fam - Glareolidae
The Coursers

Medium sized bird; tail short; bill long and slender; wings long and pointed; prefers open country and cultivated lands; nests on the bare ground.

Fam - Laridae
The Gulls

Large birds, predominantly black & white; bill stout and curved; wings long, ~~but~~ bigger than the tail when closed; feet fully webbed; spend most of the time flying over water, catching fish.

Fam - Sternidae
The River Terns

Generally white birds with black; size medium; bill straight, slender with pointed tip; wings long and pointed; tail long and deeply forked; legs small; spend most of their time flying over or near water, catching fish on the wing; nests on swamps & lakes building a bulky nest.

Fam - Charadriidae
The Plovers & Lapwings.

Generally white birds with varying amount of black; sizes various; bill straight and stout; wing long and pointed; tail short and rounded; the lapwings have wattles near the eyes and spend most of their time in fields and rocky grounds; and plovers are ~~usually~~ found near water; the breeding plovers breed on sand.

banks near rivers, while the lapwings lay eggs in sandbanks or pond fields.

Fam - Scolopacidae

The sandpipers & snipes

Plumage brown and white streaked; bill long and slender; legs long; sandpipers are found hunting on sandy banks of rivers, where as the snipes prefer flooded paddy fields; flight fast and very difficult to shoot; winter visitors.

ORDER - Scolopacidae

Fam - Phalacrocoracidae

Shormorants, shag & snakebird

Plumage generally black; neck long and slender; wings moderate; bills flattened due to which they can both swim and perch; excellent swimmers and divers; nest in colonies on trees standing near or inside water.

ORDER - Herodiones

Fam - Ibisidae

Ibises

Plumage uniform either white or black; bill long and curved downwards; tail fairly long; feet webbed, and legs long; nests in colonies on trees.

Fam - Ciconiidae

Storks & openbill

Plumage generally black and white; large and heavy birds; bill stout and long; neck long and slender; wings long & broad; tail rather short; legs very long; bills webbed; feed in fields; nests high up on a tree.

Fam - Ardeidae

Heron, Egrets & Bitterns

Plumage predominantly white with green & brown on herons; bill long, slender and straight; legs long; the Egrets develop plumes along the neck and below the breast in the breeding season; nests in large colonies on trees and roost in colonies.

ORDER - Anseres

Fam - Anatidae

Ducks, Teal, Smeu etc

Plumage various and colourful; size medium to large; bill flat; feet well webbed; legs generally short; good swimmers; take most of their food from water; waddle on land but good fliers.

ORDER - Podicipedes

Fam - Podicipidae

Medium sized brown bird with some black; practically tailless; feet webbed; legs short; excellent swimmer and diver, spends most of the time on water; nests on water, the nest being supported by weeds but always wet.

INTRODUCTION

The Tennessee Valley Authority kept accurate records of changes in avifauna brought about by their activities. In our area the work has to be undertaken by volunteers, mostly Damodar Valley Corporation staff keeping records of birds seen at different places in the Valley.

Ornithology, as far as identification of birds is concerned, is an easy and profitable pastime for any lay person. This book describes all the birds so far known to occur in the Upper Damodar Valley and indicates means to their identification.

The easiest way to recognise a bird is to find it identical with an authoritative coloured illustration. Against each bird in this book is mentioned where its coloured illustration can be found. A large number of these birds are illustrated in the three popular books in whose conjunction it should be used. Of the hundred or more birds whose plates are not available in popular books twenty have been illustrated here. The cost of coloured illustrations unfortunately limits the number.

The way beyond the popular books is not easy but not too difficult either if accurate observation and written descriptions are resorted to. Any unidentified bird must be placed in its family. The classification of birds is based on anatomy but each species has morphological characteristics which are unique. In the recognition of such characteristics lies the key to identification. For each family, therefore, the characteristic bird has been mentioned.

The species inhabiting any area are the result of a prolonged process of evolution. Therefore each bird is adapted to the environment. There is evidence of such adaptation in the morphology and habits of each bird and yields further points for recognition.

The life of the birds is concerned with finding food, protecting themselves and winning mates for continuation of the species. The appearance of birds, therefore, at once serves three purposes, that of foraging and of camouflage and display. Bills and legs show unmistakable signs of the manner in which the bird gets its food. ~~Plumage~~ Camouflage and display are ~~xxx~~ expressed in the plumage. If these are understood the identification

identification of birds is easier.

Other helpful points are habitat, food, call and general manners. Lastly there is in this book an index of local names from which birds can be identified.

Accurate lists are wanted for the different administrative units-- the police stations and the subdivisions. The present writer will be glad to help with identification and to ~~making~~ collate the information received from observers.

All identified and unidentified birds must be written with locality and date in a field book. The points of description of an unidentified bird are the following : size in inches; tail prominent or not, length of tail, nature and colour of tail; bill prominent or not, length, shape, colour and nature of bill; crests, if any, prominent or not and colour of crest; long-legged or short-legged, colour and nature of leg; predominant colours of the bird, associated colours, general description as to the relative positions of colours, habits and plant on which it feeds.

The impounding of large surface areas of water in the reservoirs is bound to change the avifauna. Many of the visiting ducks and teals and waders which now limit themselves to North Bihar may stray southward to the reservoirs of the Valley and many birds that now winter on the Chilka Lake may become passage migrants in the Valley. The resident population of birds in the jungles fringing the reservoirs is also bound to change. Changes in birdlife may also be brought about by afforestation. All this information is valuable.

Study of birds is important from the point of view of agriculture and forestry. Apart from these many tourists and visitors find birds of an area a subject of interest. This book may be of interest to tourists also many of whom will find it a general introduction to the birds of Chota Nagpur as a whole.

January, 1954
Hinoo, Ranchi.

JAMAL ARA

Order PASSERIFORMES

Family CORVIDAE (Crows and Treepies)

The crows (characteristic bird of this family) and their allies are birds of large size and robust form. They have long, straight and strong bills, slightly curved at the end. Feet strong and claws well curved; wings long, somewhat pointed. They fly well and walk with ease. Most of them are omnivorous and can live on all kinds of food.

JUNGLE CROW - KAG

Corvus macrorhynchos, F.B.I. (5)

Coloured illustration: B.I.B-4

Identification: Length 18 inches. Sexes alike. Glossy jet black bird without any grey on hind neck and breast. Legs black. Heavy black bill.

Habits: Found throughout India this bird is equally at home in forest, village and built-up town areas. Wherever it is found it is resident, but is locally migrant. Voice is deep and harsh caw or kag.

Breeding: It breeds, according to the locality, from March to June, but may start as early as December. The nest is a well-made cup of twigs high up in a tree. Eggs 3 to 4, dull green, spotted with brown.

HOUSE CROW -- KAWA

Corvus splendens, F.B.I. (11)

Coloured illustration: B.I.B. ~~4~~-3

Identification: Smaller than the Jungle Crow and with grey on its head, upper back and ~~breast~~ breast.

Habits: More numerous than the Jungle ~~Crow~~ Crow in towns and villages. Roost in large colonies. Voice : Harsh caw-caw.

Breeding: The nesting season is from December to May; a rough cup of twigs is made. There may be several nests on a tree. Eggs 4 to 5, pale blue-green, speckled and streaked with brown.

TREEPIE -- MOTRI

Crypsirina vagabunda, F.B.I. (26)

Illustration: B.I.B.-7

Identification: Long silver-grey tail (about 12 inches) with black borders and tips. The entire length of the bird is 18 inches. The head, neck and breast are sooty-brown; rest of the plumage is chestnut-reddish, black and silver-grey on the wings.

wings.

Habits: In pairs and small parties; mainly arboreal. The flight is ~~xxxxx~~ dipping ~~x~~ with alternate flapping of wings and glides. Voice: Harsh kee-kee or kheer-kheer with a musical Go-bo-link occasionally. The call is more evident than the bird.

Breeding: April to July ~~xx~~ when a rough saucer-shaped structure of twigs is made. Eggs 3 to 5 pale salmon-white streaked with bright reddish-brown.

Family PARIDAE (Tits).

The tits are small birds with ~~x~~ limited power of flight as the wings are weak and rounded. The feet are very strong and the bill is short and stout. Feathers conceal with the nostrils.

GREY TIT --RAMGANGRA (Bengali)

Parus major, ~~xxxx~~ F.B.I. (51)

Illustration: B.I.B.-8

Identification: Size 6 inches. Sexes alike. Upper plumage bluish-grey with white bars across the wings; lower plumage and cheeks white; head, neck, breast and a band down the centre of the abdomen black, giving it a semblance of wearing a black collar and tie.

Habits: Singly, pairs or small flocks. Purely arboreal. Bold and cheerful bird, very methodical in its feeding habits. It carefully examines all branches and twigs for insects, and in doing so assumes many acrobatic postures, frequently hanging upside down.

Breeding: February-November. The ~~xxxx~~ nest is in a hole in a bank, tree or wall. Eggs 3 to 6, pale pink with reddish-brown spots.

YELLOW-CHEEKED TIT --

Parus xanthogenys, F.B.I. (76)

Illustration: B.I.B.-11

Identification: A greenish and yellow tit, differing from the previous bird in having no collar but only a tie; cheeks, sides of breast and abdomen yellow; a pointed black crest. The female has greenish underparts and the ventral band is dull olive-green.

Habits: Arboreal, occurring in parties. Voice: Dekhe chi, a loud and joyous whistle.

Breeding: April to September. Eggs 4 to 6 white boldly spotted with brown.

Family SITTIDAE (Nuthatches)

Minute-sized birds which scurry up and down tree trunks and branches for which purpose they have strong feet and stiff short square tails. The bill is long and straight. Poor flyers though the wing is long and pointed. The tail is used as a support for climbing up trees. The sexes are not alike.

VELVET-FRONTED NUTHATCH

Sitta frontalis, F.B.I. (119)

Illustration: -B.I.B.-15

Identification: Upper plumage purplish-blue; lower plumage greyish-lilac; a black stripe along the forehead and behind the eyes; bill coral red; eyes yellow. The black stripe is absent in the female.

Habits: In pairs or small parties; arboreal. Voice: Mouse-like chwit-chwit, or twui-twui.

Breeding: April-June. Nests in holes in trees. Eggs 4 to 5, white densely speckled and blotched with red.

Family TIMALIIDAE (Babblers, Ioras and Chloropses)

Gregarious plain coloured birds with lax plumage are the babblers. They have strong feet for hopping as they are ground birds. The Ioras and the Chloropses are arboreal birds and are brightly coloured. They have weaker feet than the babblers, but the bills of all the three are strong and pointed.

JUNGLE BABBLER - KUTCH⁵/₄BUTHIA

Turdoides somervillei, F.B.I. (183)

Illustration: B.I.B. 16

Identification: A dirty brown bird with a fulvous abdomen. Eyes, legs and bill yellow; all the feathers and tails appear to be loosely held together. Sexes alike. Size 10 inches.

Habits: Always found in small parties of six to a dozen. They are commonly called the Seven Sisters. ~~Max~~ Noisy active birds. Voice: Kach-bach.

Breeding: March to September. Nest is a cup composed of grass, roots and fibres, generally placed in bushes or on small trees. Eggs 3 to 5, torquoise blue in colour.

STRIATED BABBLER - BARA PENGA

Turdoides earlii, F.B.I. (191)

Identification: Upper plumage brown tinged with white, giving it a ~~striated~~ striated appearance; lower plumage lighter in colour with dark stripes; eyes and bill yellow; legs blackish. Size over 5 inches. Sexes alike.

Habits: Gregarious and noisy like the Jungle Babbler but being ~~xxxxxxx~~ a lover of water and marshy lands does not descend to the ground as much as the other species. Voice : " Utters both a single whistling note rapidly repeated and a loud trisyllabic whistle, keep quiet, also repeated. Oates described the note as a sort of mew, rather loud and extremely monotonous." (Smythies).

Found in grassy plains and marshy tracts. Chiefly insectivorous.

Breeding: Principally during the rains. The nest is placed in reeds near marshy places. It is an untidy structure of reeds and grasses. Eggs 3 to 4, deep blue in colour.

COMMON BABBLER - CHOTA PENGA

Turdoides caudata, F.B.I. (192)

Illustration: B.I.B.-19

Identification: Dirty brown bird with black streaks in upper plumage; lower plumage lighter in colour. The bird has a long tail and a generally untidy look. Size 9 inches. Sexes alike.

Habits: Gregarious in dry open country; avoids heavy evergreen forest. Voice: Low undertoned warbling whistle and a constant soft chatter.

Breeding: March to September, but may breed throughout the year. A neat thick walled cup of grass in thorny bushes. Eggs 3 to 4, glossy blue.

RUFIOUS-BELLIED BABBLER -

Dumetia hyperythra, F.B.I. (229)

Illustration: B.I.B.-23

Identification: Size 5½ inches. Sexes alike. Upper plumage olive brown; lower plumage fulvous; tail cross-rayed;

Habits: Shy, sulky parties. Voice: Low but sharp Cheep-cheep.

Breeding : May to September but also throughout the year. Ball-shaped nest of grasses and bamboo leaves on thorny bushes. Eggs 3 to 4 pink with light reddish blotches.

YELLOW-EYED BABBLER - BARA PODNA

Chrysomma sinensis, F.B.I. (234)

Illustration -B.I.B.-24

Identification: Size 7 inches; Sexes alike. Upper plumage ruddy chestnut; under parts cream coloured, long tail; legs and eye-lids orange yellow; bill black.

Habits: Avoids forests. Flies better and more than other babblers. This bird is an acrobat in climbing up and down reeds. Voice: A sweet note, almost a song, Cheep, cheep, cheep, cheep.

Breeding: June to September. A deep ~~of~~ cup of grasses makes the nest usually among crops, grasses and low trees. Eggs 3 to 4, pale yellowish or pink, with light red speckles and spots.

SPOTTED BABBLER -

Pellorneum ruficeps, F.B.I. (240)

Identification: Size 6 inches. Sexes alike. Upper plumage olive brown; whitish below with a rufous cap and heavily streaked breast, or spotted with brown. Eyes red, bill brown, legs fleshy white.

Habits: Frequents low bush, woods and bamboo jungle, in small parties, pairs or singly. It is mostly on the ground, and is inclined to be noisy. Very difficult to observe as this bird hides itself on the slightest alarm.

Principally an insectivore this bird is a good songster. It makes two calls, a clear whistle Wheat-ee-er and a loud note Chunk-chunk-chunk (Lowther).

Breeding: March to May. It makes a rough globe-shaped nest of leaves and grass placed on the ground under bushes or stone. Eggs 3 to 4, very pale green or yellowish white speckled and freckled with reddish brown.

QUAKER BABBLER-

Alcippe poicephala, F.B.I. (289)

Identification: Size 6 inches. Sexes alike. A sober olive-brown babbler with a grey cap; rather tit like in shape.

Habits: Prefers evergreen forest but may be found in deciduous too. It wanders in small parties of seven to ten, hopping from sprig to sprig, often climbing upside down in search of insects. Mainly insectivorous but feeds on nectar of simul and other flowering trees. Voice: Harsh, rather subdued Churr-churr.

Breeding: Throughout the year. The nest is a flimsy cup of rootlets and lichens between two saplings or on a fork. Eggs 2 to 3, pale salmon with ~~xxx~~ blotches of light red.

COMMON IORA - SHOUBIGI (Barsat-sorai in Bengali)

Aegithina tiphia, F.B.I. (362)

Illustration: B.I.B. -27

Identification: Size 5 inches. ~~Sm~~ The male in breeding plumage has the upper parts, wings and tail black, lower parts bright yellow, two white bars across the wings. The bill, legs and feet are slaty blue. The female has upper parts, wings and tail green, lower parts yellow and two white bars on the wing.

Habits: Usually in pairs. Found in bushes and ~~xxxx~~ hedges and scrub forest. Voice: A sweet whistle, wee-e-e-e-tu.

Breeding: May to September. A shallow cup of grass makes the nest wedged in the fork of a branch. Eggs 2 to 4. The eggs are of two colour schemes: one with a pale, creamy or greyish-white irregularly marked with grey. The other type is pink with reddish markings.

MARSHALL'S IORA-

Aegithina nigrolutea, F.B.I. (366)

Identification: Slightly larger than the previous bird. Its size is $5\frac{1}{2}$ inches. The male in breeding plumage has its back bright golden yellow; the rest of its upper plumage is black with the lower plumage yellow. The tail is tipped ~~inxxxx~~ with white which is visible in flight. Outside the breeding season ~~xxxxxxx~~ all the black in the male's upper plumage reverts to a greenish yellow. The upper plumage of the female is greenish yellow; with rest of its plumage like that of the male outside the breeding season. The eyes are dark brown, bill, legs and feet are plumbeous.

Habits: The general habits and voice of this bird are similar to that of the Common Iora, but this bird shows a marked preference for thickets along stretches of water. Insects form the main food of both the ioras.

Breeding: Same as of the Common Iora.

GOLD-FRONTED CHLOROPSIS- HURRIBA (Bengali)

Chloropsis aurifrons, F.B.I. (368)

Illustration: B.I.B. -28

Identification: The other name of the chloropses is leafbirds and that describes them. Size $7\frac{1}{2}$ inches. The male is green and has yellow forehead and throat and a black chin. The female is less brilliant generally, has no gold collar; its crown is dull. Both have slender black curved bills.

Habits: In small parties, keeping mostly to tops of high trees in forests. Its call is 'a low cheep' while flying but its a wonderful mimic.

Breeding: May to August. The nest is a loose shallow cup of moss and grass. Eggs 2 cream in colour with reddish brown markings.

JERDON'S CHLOROPSIS- HAREWA

Chloropsis jerdonii, F.B.I. (374)

Illustration-B.I.B.31

Identification: Length $7\frac{1}{2}$ inches. A beautiful green bird with a purple moustache, black chin and throat. In the female the black is replaced by bluish-green.

Habits: Arboreal, frequenting light forest in parties, wandering into gardens. A good mimic but in the breeding season the male calls "Believe me" repeatedly.

Breeding: April to August. The nest is a deep cup of roots and grass, slung like a hummock in the fork of a tree. Eggs 2, creamy white speckled with black.

Family PYCNONOTIDAE (Bulbuls)

Generally small birds with a crest; plumage varies. Bill short and straight. Good fliers. Cheerful looking birds.

RED-VENTED BULBUL - BULBUL

Pycnonotus cafer, F.B.I. (399& 403)

Illustration: B.I.B.-32.

Identification: Size 8 inches. Sexes alike. A brown bird with scale-like markings on breast and back. Black head with a short crest. White rump and crimson vent.

Habits: Arboreal birds of open country. Voice: Titi-ka-ka or Phi-kar repeatedly.

Breeding: February to August. The nest is a neat cup, usually thin and fragile, made of grass and placed in bushes and trees. Eggs 3 to 4 white with deep pink or lilac tint.

RED-WHISKERED BULBUL-- KALA BULBUL

Pycnonotus jocosus, F.B.I. (410, 411)

Illustration: B.I.B.- 36.

Identification: Size 8 inches. Sexes alike. Prominent ~~xxxxxxx~~ black crest and crimson patches on cheeks. An interrupted black collar.

Habits: Small sustained but slow and jerky flight. Partial to forests.

Breeding: February to September. The nest is similar to the previous bird. Eggs 2 to 4,

WHITE-BROWED BULBUL -

Pycnonotus luteolus, F.B.I. (433)

Illustration: B.I.B.-39

Identification: Size 7 inches. Sexes alike. A crestless greenish-brown bird with pale underparts; prominent white forehead and eyebrows. Pale yellow vent.

Habits: Pairs frequent bush and scrub jungle. Voice: A subdued throaty Churr. Eats insects and berries.

Breeding: February to September. The nest is similar to other bulbuls. Eggs 2 to 4.

Family CORTHIIDAE (Creepers)

General colour black or dark grey with spots and bars; wing long and pointed; feet ~~very~~ large and strong with long toes; tail nearly square; slender bill curving downwards, longer than the head. These birds are quick and active in their movements and their general behaviour is similar to that of the nuthatches. Flight swift. Arboreal.

SPOTTED GREY CREEPER-

Salpornis spilonotus, F.B.I. (456)

Identification: Whole upper plumage, wings and tail black, spotted and barred with white. Lower plumage pale fulvous, barred with black. Chin and throat white. Bill Black. Size 6 inches. Sexes alike. This small bird is remarkably camouflaged and merges against the barks of trees while hunting for insects. It cannot be seen unless it moves.

Habits: Very active and restless bird, ~~found~~ fond of running up and down trees. Though it has a whistling note it is rarely audible. It hunts in small parties and though a bird of the plains it frequents forests.

Breeding: March to April. The nest is a shallow cup made of leaves, bark, lichens, cemented with spider webs, placed on a horizontal branch of a tree supported by a vertical twig. Eggs 2 to 3, the ground is grey or greenish white with brown spots and markings all over.

Family TURDIDAE (Chats, Robins, Thrushes, Bluethroats, 9
Rubythroats and Restarts)

The family characters are not separable in the field but individual are easily recognisable from field descriptions. Most of the birds in this family are long-legged hoppers with contrasting gay colours; bills are short and straight. These sulkers pick most of their food off the ground.

PIED BUSH CHAT -- KALA PIDHA

Saxicola caprata, F.B.I. (494)

Illustration : B.I.B.-40.

Identification: Size $5\frac{1}{2}$ inches. Sexes not alike. The male is a black bird with a prominent white rump and ~~black~~ abdomen; a white patch on the wings. The female is a greyish-brown bird with ~~dark~~ dark streaks and a pale rump.

Habits: Takes all its food sitting on the top of a stone or a similar perch sallying out on short flights. It spreads and jerks its tails. Voice: Chat-chat-chat.

Breeding: February to May. A pad or saucer or cup of grass, placed in old walls and on sand banks. Eggs: 3 to 5, pale bluish-white with ~~black~~ blotches of reddish-brown.

COLLARED BUSH CHAT

Saxicola torquata, F.B.I. (495)

Illustration: B.I.B.-43.

Identification: Size 5 inches. Sexes not alike. The male is a black-headed orange-breasted bird with prominent white patches on the sides of the neck and on shoulders. The female is similar to the Pied Bush Chat's female.

Habits: A winter visitor which perches on stone or rock, flicking and spreading its tail. Its short foraging flights are ~~not~~ strong and direct. Its not strong on its feet. Voice: Hweet-chat and Chirr-chirr.

INDIAN REDSTART - THARCAPNI or LALGIRDI (Bengali)

Phoenicurus ochrurus, F.B.I. (532)

Illustration : B.I.B.-44.

Identification: Size 6 inches. Sexes not alike. The male is a black bird with an orange-red abdomen, chestnut rump and tail. The female is brown where the male is black.

Habits: A winter visitor. Constantly shivers its tail. Voice: Tit-tit.

RED-SPOTTED BLUETHROAT --HUSSENI PIDDA

Luscinia svecica, F.B.I. (537)

Identification: Size 6 inches. Sexes not alike. Male: A brown bird with chestnut whitish underparts, throat and chin blue, broad/band on lower throat and ~~xx~~ prominently blue below the band. Female: Similar but duller, chin and throat buffy white instead of blue.

Habits: Winter visitor. Very quiet. Generally ~~x~~ running and hopping on the ground with wings partly drooping, tail cocked and switched over its back. Voice: Loud and metallic Chick-chic. Found in open country around bushes.

BROWN-BACKED ROBIN --KALCHURI

Saxicoloides fulicata, F.B.I. (557)

Illustration: B.I.B.-47

Identification: Size 7 inches. Sexes not alike. Male: A glossy black bird with a brown back and a conspicuous red patch under the tail, and prominent white patches on wings. Female: Sandy brown with a pale chestnut patch under the tail.

Habits: Bold and confiding entering compounds and villages. Carries the tail erect and is almost always on the ground. Voice: A low whistle.

Breeding: March to August. The nest is a pad in a hole in wall ~~xxxx~~ or tree. Eggs 2 to 4, white or just tinged with yellow with reddish-brown markings.

MAGPIE-ROBIN --DHAYAL or HATIURE (Santal)

Copsychus saularis, F.B.I. (558)

Illustration: B.E.B.-48

Identification: Size 8 inches. Sexes not alike: Male: A glossy blue-black bird with its lower parts sharply marked off in white. Female: Greenish-brown where the male is black.

Habits: It runs along the ground after insects. One of the most important songsters. In cold weather it makes a low whistle but in the breeding season it has a clear song of ~~xxxxxx~~ several notes.

Breeding: March to July. The nest is a saucer made of grass in holes in trees. Eggs 4 to 5, blue-green with blotches of reddish-brown.

WHITE-RUMPED SHAMA

Copsychus malabaricus, F.B.I. (563)

Illustration: B.I.B.-51

Identification: Size 11 inches. Sexes not alike. Male; Handsome glossy blue-black bird with chestnut underparts, white rump and black-and-white graduated tail. Female: Slaty brown and duller throughout.

Habits: Our best songster. Shy and retiring where the Dhayal is bold. Feeds mostly on the ground under heavy cover. Prefers moist and wooded areas. It has a larger range of notes than the Dhayal.

Breeding: March to June. The nest is a ~~xxem~~ saucer shaped out of twigs and roots placed in holes on trees. Eggs 3 to 4, more densely spotted than that of the Dhayal and therefore more brown in general tint.

RED-THROATED THRUSH

Turdus ruficollis, F.B.I. (577)

Identification: Size 10 inches. Sexes not alike. Male: Upper plumage ashy brown; chin, throat and breast chestnut; rest of lower plumage white; bill yellow. Female: Like the male but chestnut parts paler and spotted with black.

Habits: Winter visitor. In large parties, mostly on the ground and very active. Flying to the nearest tall tree when disturbed. This bird ~~inhab~~ inhabits open country surrounded by forests. Voice: A sweet loud cry.

ORANGE⁵HEADED GROUND THRUSH*Zoothera citrina*, F.B.I. (587)

Identification: Size 9 inches. Sexes not alike. Male: Upper plumage bluish-grey; head, neck and lower plumage orange-chestnut; legs creamy yellow; Female: Olive brown.

Habits: Silent and shy is this ~~xxx~~ bird, which is to be seen mostly on the ground turning over leaves and rubbish for food. It inhabits deep forests but may be found in bamboo jungle. Voice: A pleasant song in the breeding season. The alarm note is like the scratching of a pencil on slate.

Breeding: April to August. The nest is a shallow cup of twigs placed on high bushes or small trees. Eggs 3 to 5, pale-green blue though variable.

INTRODUCTION

The Tennessee Valley Authority kept accurate records of changes in avifauna brought about by their activities. In our area the work has to be undertaken by volunteers, mostly Damodar Valley Corporation staff keeping records of birds seen at different places in the Valley.

Ornithology, as far as identification of birds is concerned, is an easy and profitable pastime for any lay person. This book describes all the birds so far known to occur in the Upper Damodar Valley and indicates means to their identification.

The easiest way to recognise a bird is to find it identical with an authoritative coloured illustration. Against each bird in this book is mentioned where its coloured illustration can be found. A large number of these birds are illustrated in the three popular books in whose conjunction it should be used. Of the hundred or more birds whose plates are not available in popular books twenty have been illustrated here. The cost of coloured illustrations unfortunately limits the number.

The way beyond the popular books is not easy but not too difficult either if accurate observation and written descriptions are resorted to. Any unidentified bird must be placed in its family. The classification of birds is based on anatomy but each species has morphological characteristics which are unique. In the recognition of such characteristics lies the key to identification. For each family, therefore, the characteristic bird has been mentioned.

The species inhabiting any area are the result of a prolonged process of evolution. Therefore each bird is adapted to the environment. There is evidence of such adaptation in the morphology and habits of each bird and yields further points for recognition.

The life of the birds is concerned with finding food, protecting themselves and winning mates for continuation of the species. The appearance of birds, therefore, at once serves three purposes, that of foraging and of camouflage and display. Bills and legs show unmistakeable signs of the manner in which the bird gets its food. ~~Plumage~~ Camouflage and display are ~~xxx~~ expressed in the plumage. If these are understood the identification

identification of birds is easier.

Other helpful points are habitat, food, call and general manners. Lastly there is in this book an index of local names from which birds can be identified.

Accurate lists are wanted for the different administrative units-- the police stations and the subdivisions. The present writer will be glad to help with identification and to ~~making~~ collate the information received from observers.

All identified and unidentified birds must be written with locality and date in a field book. The points of description of an unidentified bird are the following : size in inches; tail prominent or not, length of tail, nature and colour of tail; bill prominent or not, length, shape, colour and nature of bill; crests, if any, prominent or not and colour of crest; long-legged or short-legged, colour and nature of leg; predominant colours of the bird, associated colours, general description as to the relative positions of colours, habits and plant on which it feeds.

The impounding of large surface areas of water in the reservoirs is bound to change the avifauna. Many of the visiting ducks and teals and waders which now limit themselves to North Bihar may stray southward to the reservoirs of the Valley and many birds that now winter on the Chilka Lake may become passage migrants in the Valley. The resident population of birds in the jungles fringing the reservoirs is also bound to change. Changes in birdlife may also be brought about by afforestation. All this information is valuable.

Study of birds is important from the point of view of agriculture and forestry. Apart from these many tourists and visitors find birds of an area a subject of interest. This book may be of interest to tourists also many of whom will find it a general introduction to the birds of Chota Nagpur as a whole.

January, 1954
Hinoo, Ranchi.

JAMAL ARA

Order PASSERIFORMES

Family CORVIDAE (Crows and Treepies)

The crows (characteristic bird of this family) and their allies are birds of large size and robust form. They have long, straight and strong bills, slightly curved at the end. Feet strong and claws well curved; wings long, somewhat pointed. They fly well and walk with ease. Most of them are omnivorous and can live on all kinds of food.

JUNGLE CROW - KAG

Corvus macrorhynchos, F.B.I. (5)

Coloured illustration: B.I.B-4

Identification: Length 18 inches. Sexes alike. Glossy jet black bird without any grey on hind neck and breast. Legs black. Heavy black bill.

Habits: Found throughout India this bird is equally at home in forest, village and built-up town areas. Wherever it is found it is resident, but is locally migrant. Voice is deep and harsh caw or kag.

Breeding: It breeds, according to the locality, from March to June, but may start as early as December. The nest is a well-made cup of twigs high up in a tree. Eggs 3 to 4, dull green, spotted with brown.

HOUSE CROW -- KAWA

Corvus splendens, F.B.I. (11)

Coloured illustration: B.I.B. 4-3

Identification: Smaller than the Jungle Crow and with grey on its head, upper back and ~~breast~~ breast.

Habits: More numerous than the Jungle ~~Crow~~ Crow in towns and villages. Roost in large colonies. Voice: Harsh caw-caw.

Breeding: The nesting season is from December to May; a rough cup of twigs is made. There may be several nests on a tree. Eggs 4 to 5, pale blue-green, speckled and streaked with brown.

TREEPIE -- MOTRI

Crypsirina vagabunda, F.B.I. (26)

Illustration: B.I.B.-7

Identification: Long silver-grey tail (about 12 inches) with black borders and tips. The entire length of the bird is 18 inches. The head, neck and breast are sooty-brown; rest of the plumage is chestnut-reddish, black and silver-grey on the wings.

wings.

Habits: In pairs and small parties; mainly arboreal. The flight is ~~xxxxx~~ dipping & with alternate flapping of wings and glides. Voice: Harsh kee-kee or kheer-kheer with a musical Go-bo-link occasionally. The call is more evident than the bird.

Breeding: April to July ~~ix~~ when a rough saucer-shaped structure of twigs is made. Eggs 3 to 5 pale salmon-white streaked with bright reddish-brown.

Family PARIDAE (Tits).

The tits are small birds with a limited power of flight as the wings are weak and rounded. The feet are very strong and the bill is short and stout. Feathers conceal with the nostrils.

GREY TIT --RAMGANGRA (Bengali)

Parus major, ~~F.B.I.~~ F.B.I. (51)

Illustration: B.I.B.-8

Identification: Size 6 inches. Sexes alike. Upper plumage bluish-grey with white bars across the wings; lower plumage and cheeks white; head, neck, breast and a band down the centre of the abdomen black, giving it a semblance of wearing a black collar and tie.

Habits: Singly, pairs or small flocks. Purely arboreal. Bold and cheerful bird, very methodical in its feeding habits. It carefully examines all branches and twigs for insects, and in doing so assumes many acrobatic postures, frequently hanging upside down.

Breeding: February-November. The ~~next~~ nest is in a hole in a bank, tree or wall. Eggs 3 to 6, pale pink with reddish-brown spots.

YELLOW-CHEEKED TIT --

Parus xanthogenys, F.B.I. (76)

Illustration: B.I.B.-11

Identification: A greenish and yellow tit, differing from the previous bird in having no collar but only a tie; cheeks, sides of breast and abdomen yellow; a pointed black crest. The female has greenish underparts and the ventral band is dull olive-green.

Habits: Arboreal, occurring in parties. Voice: Dekhe chi, a loud and joyous whistle.

Breeding: April to September. Eggs 4 to 6 white boldly spotted with brown.

Family SITTIDAE (Nuthatches)

Minute-sized birds which scurry up and down tree trunks and branches for which purpose they have strong feet and stiff short square tails. The bill is long and straight. Poor flyers though the wing is long and pointed. The tail is used as a support for climbing up trees. The sexes are not alike.

VELVET-FRONTED NUTHATCH

Sitta frontalis, F.B.I. (119)

Illustration: -B.I.B.-15

Identification: Upper plumage purplish-blue; lower plumage greyish-lilac; a black stripe along the forehead and behind the eyes; bill coral red; eyes yellow. The black stripe is absent in the female.

Habits: In pairs or small parties; arboreal. Voice: Mouse-like chwit-chwit, or twui-twui.

Breeding: April-June. Nests in holes in trees. Eggs 4 to 5, white densely speckled and blotched with red.

Family TIMALIIDAE (Babblers, Ioras and Chloropses)

Gregarious plain coloured birds with lax plumage are the babblers. They have strong feet for hopping as they are ground birds. The Ioras and the Chloropses are arboreal birds and are brightly coloured. They have weaker feet than the babblers, but the bills of all the three are strong and pointed.

JUNGLE BABBLER - KUTCH²BUTHIA

Turdoides somervillei, F.B.I. (183)

Illustration: B.I.B. 16

Identification: A dirty brown bird with a fulvous abdomen. Eyes, legs and bill yellow; all the feathers and tails appear to be loosely held together. Sexes alike. Size 10 inches.

Habits: Always found in small parties of six to a dozen. They are commonly called the Seven Sisters. ~~Max~~ Noisy active birds. Voice: Kach-bach.

Breeding: March to September. Nest is a cup composed of grass, roots and fibres, generally placed in bushes or on small trees. Eggs 3 to 5, torquoise blue in colour.

STRIATED BABBLER - BARA PENGA

Turdoides earlii, F.B.I. (191)

Identification: Upper plumage brown tinged with white, giving it a ~~striated~~ striated appearance; lower plumage lighter in colour with dark stripes; eyes and bill yellow; legs blackish. Size over 5 inches. Sexes alike.

Habits: Gregarious and noisy like the Jungle Babbler but being ~~xxxxxxx~~ a lover of water and marshy lands does not descend to the ground as much as the other species. Voice : " Utters both a single whistling note rapidly repeated and a loud trisyllabic whistle, keep quiet, also repeated. Oates described the note as a sort of mew, rather loud and extremely monotonous." (Smythies).

Found in grassy plains and marshy tracts. Chiefly insectivorous.

Breeding: Principally during the rains. The nest is placed in reeds near marshy places. It is an untidy structure of reeds and grasses. Eggs 3 to 4, deep blue in colour.

COMMON BABBLER - CHOTA PENGA

Turdoides caudata, F.B.I. (192)

Illustration: B.I.B.-19

Identification: Dirty brown bird with black streaks in upper plumage; lower plumage lighter in colour. The bird has a long tail and a generally untidy look. Size 9 inches. Sexes alike.

Habits: Gregarious in dry open country; avoids heavy evergreen forest. Voice: Low undertoned warbling whistle and a constant soft chatter.

Breeding: March to September, but may breed throughout the year. A neat thick walled cup of grass in thorny bushes. Eggs 3 to 4, glossy blue.

RUFIOUS-BELLIED BABBLER -

Dumetia hyperythra, F.B.I. (229)

Illustration: B.I.B.-23

Identification: Size 5½ inches. Sexes alike. Upper plumage olive brown; lower plumage fulvous; tail cross-rayed;

Habits: Shy, sulky parties. Voice: Low but sharp Cheep-cheep.

Breeding : May to September but also throughout the year. Ball-shaped nest of grasses and bamboo leaves on thorny bushes. Eggs 3 to 4 pink with light reddish blotches.

YELLOW-EYED BABBLER - BARA PODNA

Chrysomma sinensis, F.B.I. (234)

Illustration -B.I.B.-24

Identification: Size 7 inches; Sexes alike. Upper plumage ruddy chestnut; under parts cream coloured, long tail; legs and eye-lids orange yellow; bill black.

Habits: Avoids forests. Flies better and more than other babblers. This bird is an acrobat in climbing up and down reeds. Voice: A sweet note, almost a song, Cheep, cheep, cheep, cheep.

Breeding: June to September. A deep ~~mf~~ cup of grasses makes the nest usually among crops, grasses and low trees. Eggs 3 to 4, pale yellowish or pink, with light red speckles and spots.

SPOTTED BABBLER -

Pellorneum ruficeps, F.B.I. (240)

Identification: Size 6 inches. Sexes alike. Upper plumage olive brown; whitish below with a rufous cap and heavily streaked breast, or spotted with brown. Eyes red, bill brown, legs fleshy white.

Habits: Frequents low bush, woods and bamboo jungle, in small parties, pairs or singly. It is mostly on the ground, and is inclined to be noisy. Very difficult to observe as this bird hides itself on the slightest alarm.

Principally an insectivore this bird is a good songster. It makes two calls, a clear whistle Wheat-ee-er and a loud note Chunk-chunk-chunk (Lowther).

Breeding: March to May. It makes a rough globe-shaped nest of leaves and grass placed on the ground under bushes or stone. Eggs 3 to 4, very pale green or yellowish white speckled and freckled with reddish brown.

QUAKER BABBLER-

Alcippe poicephala, F.B.I. (289)

Identification: Size 6 inches. Sexes alike. A sober olive-brown babbler with a grey cap; rather tit like in shape.

Habits: Prefers evergreen forest but may be found in deciduous too. It wanders in small parties of seven to ten, hopping from sprig to sprig, often climbing upside down in search of insects. Mainly insectivorous but feeds on nectar of simul and other flowering trees. Voice: Harsh, rather subdued Churr-churr.

Breeding: Throughout the year. The nest is a flimsy cup of rootlets and lichens between two saplings or on a fork. Eggs 2 to 3, pale salmon with ~~xxx~~ blotches of light red.

COMMON IORA - SHOUBIGI (Barsat-sorai in Bengali)

Aegithina tiphia, F.B.I. (362)

Illustration: B.I.B. -27

Identification: Size 5 inches. ~~xx~~ The male in breeding plumage has the upper parts, wings and tail black, lower parts bright yellow, two white bars across the wings. The bill, legs and feet are slaty blue. The female has upper parts, wings and tail green, lower parts yellow and two white bars on the wing.

Habits: Usually in pairs. Found in bushes and ~~xxxx~~ hedges and scrub forest. Voice: A sweet whistle, wee-e-e-e-tu.

Breeding: May to September. A shallow cup of grass makes the nest wedged in the fork of a branch. Eggs 2 to 4, The eggs are of two colour schemes: one with a pale, creamy or greyish-white irregularly marked with grey. The other type is pink with reddish markings.

MARSHALL'S IORA-

Aegithina nigrolutea, F.B.I. (366)

Identification: Slightly larger than the previous bird. Its size is $5\frac{1}{2}$ inches. The male in breeding plumage has its back bright golden yellow; the rest of its upper plumage is black with the lower plumage yellow. The tail is tipped ~~xxxxxxx~~ with white which is visible in flight. Outside the breeding season ~~xxxxxxx~~ all the black in the male's upper plumage reverts to a greenish yellow. The upper plumage of the female is greenish yellow; with rest of its plumage like that of the male outside the breeding season. The eyes are dark brown, bill, legs and feet are plumbeous.

Habits: The general habits and voice of this bird are similar to that of the Common Iora, but this bird shows a marked preference for thickets along stretches of water. Insects form the main food of both the ioras.

Breeding: Same as of the Common Iora.

GOLD-FRONTED CHLOROPSIS- HURRIBA (Bengali)

Chloropsis aurifrons, F.B.I. (368)

Illustration: B.I.B. -28

Identification: The other name of the chloropses is leafbirds and that describes them. Size $7\frac{1}{2}$ inches. The male is green and has yellow forehead and throat and a black chin. The female is less brilliant generally, has no gold collar; its crown is dull. Both have slender black curved bills.

Habits: In small parties, keeping mostly to tops of high trees in forests. Its call is a low cheep while flying but its a wonderful mimic.

Breeding: May to August. The nest is a loose shallow cup of moss and grass. Eggs 2 cream in colour with reddish brown markings.

JERDON'S CHLOROPSIS- HAREWA

Chloropsis jerdonii, F.B.I. (374)

Illustration-B.I.B.31

Identification: Length $7\frac{1}{2}$ inches. A beautiful green bird with a purple moustache, black chin and throat. In the female the black is replaced by bluish-green.

Habits: Arboreal, frequenting light forest in parties, wandering into gardens. A good mimic but in the breeding season the male calls "Believe me" repeatedly.

Breeding: April to August. The nest is a deep cup of roots and grass, slung like a hummock in the fork of a tree. Eggs 2, creamy white speckled with black.

Family PYCNONOTIDAE (Bulbuls)

Generally small birds with a crest; plumage varies. Bill short and straight. Good fliers. Cheerful looking birds.

RED-VENTED BULBUL - BULBUL

Pycnonotus cafer, F.B.I. (399 & 403)

Illustration: B.I.B.-32.

Identification: Size 8 inches. Sexes alike. A brown bird with scale-like markings on breast and back. Black head with a short crest. White rump and crimson vent.

Habits: Arboreal birds of open country. Voice: Titi-ka-ka or Phi-kar repeatedly.

Breeding: February to August. The nest is a neat cup, usually thin and fragile, made of grass and placed in bushes and trees. Eggs 3 to 4 white with deep pink or lilac tint.

RED-WHISKERED BULBUL-- KALA BULBUL

Pycnonotus jocosa, F.B.I. (410, 411)

Illustration: B.I.B.- 36.

Identification: Size 8 inches. Sexes alike. Prominent ~~xxxxxxx~~ black crest and crimson patches on cheeks. An interrupted black collar.

Habits: Small sustained but slow and jerky flight. Partial to forests.

Breeding: February to September. The next is similar to the previous bird. Eggs 2 to 4,

WHITE-BROWED BULBUL -

Pycnonotus luteolus, F.B.I. (433)

Illustration: B.I.B.-39

Identification: Size 7 inches. Sexes alike. A crestless greenish-brown bird with pale underparts; prominent white forehead and eyebrows. Pale yellow vent.

Habits: Pairs frequent bush and scrub jungle. Voice: A subdued throaty Churr. Eats insects and berries.

Breeding: February to September. The nest is similar to other bulbuls. Eggs 2 to 4.

Family CORTHIIDAE (Creepers)

General colour black or dark grey with spots and bars; wing long and pointed; feet ~~very~~ large and strong with long toes; tail nearly square; slender bill curving downwards, longer than the head. These birds are quick and active in their movements and their general behaviour is similar to that of the nuthatches. Flight swift. Arboreal.

SPOTTED GREY CREEPER-

Salpornis spilonotus, F.B.I. (456)

Identification: Whole upper plumage, wings and tail black, spotted and barred with white. Lower plumage pale fulvous, barred with black. Chin and throat white. Bill Black. Size 6 inches. Sexes alike. This small bird is remarkably camouflaged and merges against the barks of trees while hunting for insects. It cannot be seen unless it moves.

Habits: Very active and restless bird, ~~found~~ fond of running up and down trees. Though it has a whistling note it is rarely audible. It hunts in small parties and though a bird of the plains it frequents forests.

Breeding: March to April. The nest is a shallow cup made of leaves, bark, lichens, cemented with spider webs, placed on a horizontal branch of a tree supported by a vertical twig. Eggs 2 to 3, the ground is grey or greenish white with brown spots and markings all over.

Family TURDIDAE (Chats, Robins, Thrushes, Bluethroats, 9
Rubythroats and Restarts)

The family characters are not separable in the field but individual are easily recognisable from field descriptions. Most of the birds in this family are long-legged hoppers with contrasting gay colours; bills are short and straight. These sulkers pick most of their food off the ground.

PIED BUSH CHAT -- KALA PIDHA

Saxicola caprata, F.B.I. (494)

Illustration : B.I.B.-40.

Identification: Size $5\frac{1}{2}$ inches. Sexes not alike. The male is a black bird with a prominent white rump and ~~xxxx~~ abdomen; a white patch on the wings. The female is a greyish-brown bird with ~~xxxxxx~~ dark streaks and a pale rump.

Habits: Takes all its food sitting on the top of a stone or a similar perch sallying out on short flights. It spreads and jerks its tails. Voice: Chat-chat-chat.

Breeding: February to May. A pad or saucer or cup of grass, placed in old walls and on sand banks. Eggs: 3 to 5, pale bluish-white with ~~xxxx~~ blotches of reddish-brown.

COLLARED BUSH CHAT

Saxicola torquata, F.B.I. (495)

Illustration: B.I.B.-43.

Identification: Size 5 inches. Sexes not alike. The male is a black-headed orange-breasted bird with prominent white patches on the sides of the neck and on shoulders. The female is similar to the Pied Bush Chat's female.

Habits: A winter visitor which perches on stone or rock, flicking and spreading its tail. Its short foraging flights are ~~x~~ strong and direct. Its not strong on its feet. Voice: Hweet-chat and Chirr-chirr.

INDIAN REDSTART - THARCAPNI or LALGIRDI (Bengali)

Phoenicurus ochrurus, F.B.I. (532)

Illustration : B.I.B.-44.

Identification: Size 6 inches. Sexes not alike. The male is a black bird with an orange-red abdomen, chestnut rump and tail. The female is brown where the male is black.

Habits: A winter visitor. Constantly shivers its tail. Voice: Tit-tir.

RED-SPOTTED BLUEBIRD --HUSSENI PIDDA

Luscinia svecica, F.B.I. (537)

Identification: Size 6 inches. Sexes not alike. Male: A brown bird with whitish underparts, throat and chin blue, broad band on lower throat and ~~xx~~ prominently blue below the band. Female: Similar but duller, chin and throat buffy white instead of blue.

Habits: Winter visitor. Very quiet. Generally ~~x~~ running and hopping on the ground with wings partly drooping, tail cocked and switched over its back. Voice: Loud and metallic Chick-chic. Found in open country around bushes.

BROWN-BACKED ROBIN --KALCHURI

Saxicoloides fulicata, F.B.I. (557)

Illustration: B.I.B.-47

Identification: Size 7 inches. Sexes not alike. Male: A glossy black bird with a brown back and a conspicuous red patch under the tail, and prominent white patches on wings. Female: Sandy brown with a pale chestnut patch under the tail.

Habits: Bold and confiding entering compounds and villages. Carries the tail erect and is almost always on the ground. Voice: A low whistle.

Breeding: March to August. The nest is a pad in a hole in wall ~~xxxx~~ or tree. Eggs 2 to 4, white or just tinged with yellow with reddish-brown markings.

MAGPIE-ROBIN --DHAYAL or HATIURE (Santal)

Copsychus saularis, F.B.I. (558)

Illustration: B.I.B.-48

Identification: Size 8 inches. Sexes not alike: Male: A glossy blue-black bird with its lower parts sharply marked off in white. Female: Greenish-brown where the male is black.

Habits: It runs along the ground after insects. One of the most important songsters. In cold weather it makes a low whistle but in the breeding season it has a clear song of ~~xxxxxxx~~ several notes.

Breeding: March to July. The nest is a saucer made of grass in holes in trees. Eggs 4 to 5, blue-green with blotches of reddish-brown.

WHITE-RUMPED SHAMA

Copsychus malabaricus, F.B.I. (563)

Illustration: B.I.B.-51

Identification: Size 11 inches. Sexes not alike. Male; Handsome glossy blue-black bird with chestnut underparts, white rump and black-and-white graduated tail. Female: Slaty brown and duller throughout.

Habits: Our best songster. Shy and retiring where the Dhayal is bold. Feeds mostly on the ground under heavy cover. Prefers moist and wooded areas. It has a larger range of notes than the Dhayal.

Breeding: March to June. The nest is a ~~xxxx~~ saucer shaped out of twigs and roots placed in holes on trees. Eggs 3 to 4, more densely spotted than that of the Dhayal and therefore more brown in general tint.

RED-THROATED THRUSH

Turdus ruficollis, F.B.I. (577)

Identification: Size 10 inches. Sexes not alike. Male: Upper plumage ashy brown; chin, throat and breast chestnut; rest of lower plumage white; bill yellow. Female: Like the male but chestnut parts paler and spotted with black.

Habits: Winter visitor. In large parties, mostly on the ground and very active. Flying to the nearest tall tree when disturbed. This bird ~~ixhax~~ inhabits open country surrounded by forests. Voice: A sweet loud cry.

ORANGE-HEADED GROUND THRUSH

Zoothera citrina, F.B.I. (587)

Identification: Size 9 inches. Sexes not alike. Male: Upper plumage bluish-grey; head, neck and lower plumage orange-chestnut; legs creamy yellow; Female: Olive brown.

Habits: Silent and shy is this ~~hax~~ bird, which is to be seen mostly on the ground turning over leaves and rubbish for food. It inhabits deep forests but may be found in bamboo jungle. Voice: A pleasant song in the breeding season. The alarm note is like the scratching of a pencil on slate.

Breeding: April to August. The nest is a shallow cup of twigs placed on high bushes or small trees. Eggs 3 to 5, pale-green blue though variable.