

its anterior extremity, and three longitudinal rows of white spots, one on each side and the other extending along the middle, which diminish in size as they approach the spinners; the under part is yellowish white freckled with black, and the plates of the spiracles are pale yellow.

The spider described above was captured in the neighbourhood of Winchester in July 1846 by James Franklin Preston, Esq., of Plas Madoc, near Llanrwst, Denbighshire; and was comprised among specimens of *Araneidea* which that gentleman was so obliging as to collect for me in Hampshire and the Isle of Wight.

XXXII.—*The Birds of Calcutta, collected and described by*
CARL J. SUNDEVALL*.

[Continued from p. 261.]

32. *Gracula tristis*, Lath., Cuv.—*Pastor tristis*, Temm., Wagl. Rufo-grisea, capite lævi colloque nigris; ventre postico cum crisso, apicibus rectricum basique remigum late albis.

♂ ♀ similes. Sturno paullo major; ala 142 mill., tarsus 38, cauda 92; rostrum ab angulo oris 30. Lingua apice bifida, non lacera. Iris obscure rubra, circulo albo-punctato, circa pupillam. Vitta lata nuda, lutea e rostro per oculos. Rostrum et pedes tota lutea. Plumæ capitis longæ, acutæ, paullo erectiles. Alæ et cauda nigra. Alarum tectrices primariæ totæ, remiges posteriores longe ultra medium, albæ †. (Testiculi mense Martii parvi.)

This is one of the most numerous birds about Calcutta, and is stationary there. They live in great noisy crowds, which however do not form regular close flocks, but are continually assembled and dispersed or interchanged with others. In their mode of life they resemble both starlings and jackdaws; indeed they are quite like the latter when they walk upon the ground, nodding their heads at every step. The nests are always seen near grazing cattle. The flight is heavy, with a strong motion of the wings; but when they wish to stop, the wings are held still and expanded. The male is often seen to raise its tuft. In the morning and evening they sit in flocks on the trees, and make a fearful noise with their chattering voices, which sound like *tjati, tjati*, or *tjo-i*. No song was ever heard from them. They are not shy, and often come into the town. They eat chiefly rice, but often

* Translated from the 'Physiographiska Sällskapets Tidskrift' by H. E. Strickland, M.A.

† *Gracula fusca* e Java (*Pastor fuscus*, Wagl.) differt colore corporis obscure fusco; ala minus alba; vitta capitis nuda paullo minore, cauda brevior (75 mill.), rostroque paullo majore. De cæteris similis etiam dimensione.

insects, especially crickets. They will by no means live on meat. The Bengal name is *Salik* (the *i* short and accented). Their propagation is unknown to me.

33. *Gracula cristatella*, Linn.—*Pastor cristatellus*, *Wagl.* Cinereo-fusca, fronte cristata; macula parva nuda pone oculos, rostro basi nigro, pedibusque luteis; remigibus basi, rectricibus apice, crissoque albis.

♂ crista densiore, tectricibus primariis totis albis. Ala 120 mill., tarsus 35, cauda 77.—♀ tectricibus primariis basi nigris; ala 115, tarsus 33, cauda 70. Priori angustior, rostro paullo longiore. Lingua prioris, sed apice paullulum lacera. Iris flavissima, lata. Plumæ capitis erectiles; anticæ antrorsum spectantes, rectæ, non reflexiles, longit. 10 millim. cristam compressam in basi rostri formantes. Margo carpi et tectrices inferiores cinereæ, in priori albæ. Abdomen fulvescenti albidum.

Occurs less abundantly than the preceding, and frequents trees more. I only found this species solitary, not in flocks, from February to May. The note was less chattering, and the males were heard to sing agreeably enough, most like our Magpie or Starling. The feathers of the head in the males are raised and depressed almost constantly. While walking, the head is carried less high than that of the former species. In the stomach were found seeds and remains of fruit. By the natives this species was called indifferently *Majna* and *Sallik*, which name however applies also to *Gracula tristis* and *religiosa*.

34. *Gracula rosea*, Cuv.; Nillson, Skand. Faun.; Gloger, Eur. p. 169.—*Pastor roseus*, *Temm.*, *Wagl.*

Pallide rubicunda; capite lateribus vix nudo, collo pectoreque antico, alis caudaque totis nigris.

Adulta rosea et nigra; capitis plumæ longæ, curvatæ, lacerae, attenuatæ.

♀ juv. (e Ceylon, Dec.). Superne fuscens, subtus albida, rubicundo tincta, crisso nigro-maculato. Partes nigræ impure coloratæ. Plumæ capitis mediocres, rotundatæ, appressæ. Alarum plumæ tenuæ griseo-marginatæ. Rostrum superne nigrum, subtus flavescens. Pedes pallide fuscescentes. Iris obscura. Long. $8\frac{1}{2}$ poll.; ala 127 mill., cauda 72.

While sailing in the Indian sea, two young individuals came on board; one near the southern point of Ceylon, Dec. 14; the other alighted on the ship halfway between Ceylon and the north point of Sumatra, at least 100 geographic miles from each, and 80 or 90 miles from the Andaman isles. The wind had been north-west, so that it probably came from the Indian coast. Both these birds soon became so tame as to eat out of the hand, and we fed them abundantly on cockroaches (*Blatta germanica*) which swarmed during the voyage. In Bengal I never saw this

species, but I consider it certain that it is found there, as it makes its migrations on the scale above-mentioned, and is found in Ceylon, the Indian peninsula and Persia.

Obs. *Gracula religiosa*, Linn. (*Eulabes*, Cuv.) var. *minor*, was often seen in cages at Calcutta on sale for one or two rupees. It was said to be captured in the country, but I could not get any certain information that it is found wild in Bengal, and I soon learned that the assertions of the natives in such cases are not to be relied on. It is very possible that they come in the ships from Java. The Indian name is *Majna*, which in the English orthography is written *mino* or *myana*, by which name it is called in the oldest accounts of the species. Edwards writes it *Minor*, and the French have thence made the name *Mainate*. In Java the bird is called (according to Horsfield) *Beo* or *Mencho*.

35. *Sturnus contra*, Linn.—Pastor, Wagl.

Rostro elongato, recto, apice depresso. Niger, capitis lateribus, ventre, vitta alarum uropygioque albis. Vitta per oculos maxima, nuda flava*.

Longit. 8 poll. Ala 120 mill., tarsus 33, cauda 73, rostrum e fronte 25. Lingua bifido-lacera. Iris alba. Pedes flavi. Rostrum basi luteum, apice album. Nucha paullo albido- seu griseo-varia.

♀ non differt nisi colore paullo fuscior, juvenes et hiemales ventre sordido.

The Indian Starling is very common near Calcutta, where it is called *Kalickia*. I am not informed whence the name *contra*, which according to the older authors is its Indian name, is derived. In the form of the body, the actions, voice, &c. it has the nearest resemblance to our Starling. Like that bird, it is first seen in spring in small flocks, which late in March are broken up for pairing. It is chiefly found near houses, and lives principally on insects. In March it is also seen diligently plucking the flowers of the cotton-tree (*Bombax malabaricus*). It is a stationary species.

36. *Upupa epops*, Linn., was twice seen (once on April 20, near Serampore), but was not obtained. The flight, motions, and, as far as I could see, the colour also were identical with those of our northern Hoopoe. It is said not to be rare, according to the Danish merchant Berg, in Serampore, who in this bird recognised the Hoopoe of his own country, and said that he had heard its voice the same as in Denmark.

37. *Corvus splendens*, Vieill., Wagler.

Obscure griseus, capite supra, collo antico, alis caudaque nigris, violaceo-nitidis. Jugum plumis lanceolatis, virescenti-nitidis.

* *Pastor ialla*, Horsf., Wagl., e Java, differt colore superne rufescenti-nigro, et albedine capitis minore; sed non nuditate capitis ut dicit Wagl. (Syst. Av.). An dist. sp.?

Long. $16\frac{1}{2}$ poll. Ala 260 mill., tarsus 43, rostrum e fronte 44, altit. 18, cauda 178. Iris nigrofusca. Rostrum magnum, ut *Coracis*, sed compressius; dorso elevato, carinato, compresso, valde arcuato. Setæ narium vix ad medium rostri extensæ. Plumæ corporis basi albæ. Cauda leviter rotundata, alas longe superans. ♂ paullo major et nitidior quam ♀.

In most respects this species forms a connecting link between the Grey Crow and the Jackdaw. The colours resemble both: the form of the body, of the neck and head, are those of the Crow; the activity of the movements comes nearer those of the Jackdaw; but the beak is much larger and more compressed than in either, most like the Raven's.

Corvus splendens is very common about Calcutta during the whole year. Evening and morning it is seen in flocks, which roost at night in trees, commonly in company with *Gracula tristis*. They have their common abode on the road between Calcutta and Fort William, and make a terrible noise. The note is a short, guttural, but not rough, *grah, grah*, quite unlike that of our species. The usual food consists of various refuse, also fish, crabs, &c., which are left dry by the ebb-tide, but especially of the innumerable dead bodies which daily float in the river and are cast upon its banks. They share this booty with the Vultures and *Ciconia Argala*. When these more mighty rivals are present, the crow is often obliged to quit his place; but one may often see him, when driven off by some vulture, hop up with the true *naïveté* of a jackdaw on to the back of the mighty bird, and from this elevation look around for some other place where he can get a share in the feast undisturbed. One often sees a crow sailing by upon a corpse floating in the river, on which it is feeding voraciously. The nests are built of twigs in trees, both near the trunk and among the smaller branches. They are without roofs, and resemble those of the raven. In the month of March I saw a pair build in the mainmast of a dismantled ship. There were five eggs in the nest which I discovered in the beginning of May, in colour, spots, and size like those of the jackdaw (their mean length was 37 millim.), but they show rather greater mutual differences in form and intensity of colour, as is common among the crows. They appeared mostly to lay their eggs in April and May, but already on the 4th of April there was seen a nearly full-feathered young one which had just left the nest. The Bengal name is *Khaa* (both *a*'s pronounced separately). The Musselmans call it *Gawa* (the *w* as in English).

38. *Corvus enca*? Horsf., Wagler. Totus niger plumis basi cinereis; cauda subæquali, alas longe superante. Plumæ juguli medii lanceolatæ nitidæ, apice bifidæ. Rostrum maximum, compressum,

culmine elevato, arcuato. Macula parva nuda pone oculos, nulla sub eis.

♂ Long. 17 poll. Ala circa 270 mill., tarsus 51, cauda 170, ($\frac{1}{3}$ ultra alas); rostrum e fauce 59, altit. 23, cum cranio 98. Totus niger, dorso, scapulis tectricibusque violaceo-nitentibus. Rostrum fere *coracis*, sed magis compressum et longius extensum; forma exacte ut prioris; setæ narium non ad medium rostrum extensæ, culminis basin haud tegentes. Remex 2^a brevior quam 6^a, longior quam 7^a. Crederem hunc esse *C. encam* quæ autem a Wagler, quoad formas, cum *C. frugilego* comparatur; dimensiones etiam omnes *C. encæ* majores.

This species is less common than the last; I never saw it in flocks, but only solitary, or paired in spring. The note consists of a tolerably clear, rough *krah, krah*, which is much hoarser and shorter than in our crow, and more like the rook's voice. The food consists of insects; in the stomach were found only larvæ and butterflies. I never saw this species near corpses, which however are to be obtained everywhere. This is the species which the Europeans in Bengal call Raven. The Bengalese name is *Kaak* or *Dohm Kaak*.

39. *Hirundo rustica*, Linn.—Some individuals were seen March 23, near Sucsagor, some miles N. of Calcutta. I could easily have shot the first which offered, for it sat on a post at some yards distance, where I was once resting; but my surprise at meeting here with the Swallow, which in my own country I had cherished with especial affection from childhood, prevented the shot. I am however fully satisfied that this specimen was altogether like those which occur with us; the white spots on the tail, the white under-parts, red throat, surrounded with black, &c. were seen clearly and recognised instantly. I never saw this bird in other places.

Obs. Another species of Swallow with a slightly forked tail was also seen near Sucsagor, but not obtained. Probably several species are found in the country, as I thought I saw considerable variety among the Swallows which flew about, though they do not occur so commonly as the two following *Cypseli*.

II. GRESSORES.

40. *Cypselus affinis*, Gray, Illustr. of Ind. Zool. ii. t. 6. fig. 2.

Niger, gula uropygioque late albis; cauda brevi, æquali ♂ (e Ceylon Dec.). Loræ aterrimæ. Caput supra fuscescens, antice cinerascens, limite superciliari tenui, albido. Dorsum æneo-micans. Ala nigra, margine carpi cinerascens; remiges 1 et 2 æquales, caudam 40 millim. excedentes. Pennæ cubiti ad $\frac{1}{3}$ alæ exeunt. Rectrices 10 æquales. Longitudo ad ap. caudæ $4\frac{1}{2}$ poll. Ala 130 millim. Cauda 38.—♀ Similis mari, vix magis fusca.

Rostrum, pedum et tectricum alarum structura omnino ut in *Cyps.*

- * *apode*. Tarsi plumati. Nares apertura lineari introrsum arcuata, et ad latus internum membranæ sita. (In *C. apode* apertura per medium membranæ ducta.)

The two specimens above-described came on board ship December 6th, in the midst of the Indian ocean, near the equator, due S. from Ceylon, consequently ninety geographical miles from that island, and the same distance from the Maldives. They seemed fatigued, and settled upon the rigging, from which they were shot down. The wind had been somewhat variable, with storms of rain, but not strong enough to drive these powerfully-flying birds astray. They must have been on some excursion without a definite object, which at all events had been their last; and doubtless innumerable multitudes of birds perish every year in the sea from a similar love of wandering. The same species was afterwards recognised in Bengal, where it appeared very common, though I did not obtain it there. A pair of these birds was seen in a house at Serampore, where they built in February and had young the beginning of April. The nest lay on a beam, about ten ells high; it was composed of feathers, straw, &c. without mud. I omitted to observe whether this nest was smeared with a glutinous substance like that with which the nest of our Swift is cemented together, for this last circumstance was then unknown to me. During flight this species resembled the House-Swallow rather than the Swift, since the wings are not so pointed and curved as those of the latter. These and other allied birds in India were seldom seen to fly in the middle of the day, but mostly in the morning and evening. The male above-described had many worms in the intestine.

41. *Cypselus palmarum*, Gray, Ill. ii. t. 6. fig. 1.—[Verisim. *Hirundo indica*, Gm., *Lath.* no. 16, et *Hir. ambrosiaca* var. *b*, *Lath.* no. 9.]

Griseus, subtus dilutior, cauda profunde furcata, alis parum brevior. Longit. fere 5 poll.

♂, ♀ (initio Maii). Immaculatus, supra fuscescens, capite vix rufescente tincto. Gula et genæ albidæ. Remiges et rectrices paullo ænescentes. Rostrum et pedes nigri. Long. alæ plic. 112 millim., caudæ 65. Digni prioris. Remigum 1^a brevior quam 2^{da}, narium apertura sublinearis, ad latus externum membranæ. Tarsi extus tantum plumati. Rectrices mediæ duplo breviores quam extimæ.

The flight of this species also is much like that of the House-Swallow. The species is common in Bengal. In the beginning of May I saw a pair who were engaged in building their nest high up in a palm-tree (*Borassus flabelliformis*) among the lower portion of the leaf-stalks, which correspond to the branches in other trees. They had their mouths all slimy, and full of a kind of down like the pappus of some syngenesious plant, which they appeared to catch during flight; for I saw them fly round for a

while, and betake themselves at intervals to their destined habitation, but never once settle on the ground or even approach the plants. The nest itself was not visible, nor would it have been easy to ascend to it up a perfectly smooth stem fifteen or sixteen ells in height. Gray, in the work above-quoted, represents such a nest resting upon the leaf itself of a palm. In the stomach of this species were found small hard insects.

42. *Picus bengalensis*, L. et auct.—*P. nuchalis*, Wagl. Syst. no. 64.

Crista coccinea, dorso luteo, corpore nigro alboque longitudinaliter vario; alis antice nigricantibus, albo-maculatis; cauda nucaque nigris immaculatis; pollice minuto; naribus nudis.

♂ capillitio toto rubro. ♀ fronte verticeque nigris, albo-guttatis (Febr.—Aprili). In ♀ adulta (Martio) plumæ dorsi anterioris apice rubro-aureæ. Ala 144 millim., tars. 21. Iris obscure rubra. Rostrum longit. capitis, angulis obsoletis.

This handsome Woodpecker was the only one which occurred commonly near Calcutta. It has most affinity with our Green Woodpecker, the mode of flight is exactly the same, and the note is merely a little more shrill, as the bird is considerably smaller. It was named *khorth-gutturie* by a Hindoo whom I made to pronounce the word very distinctly; other persons called it commonly *ghulghutti* or *kolkotti*. The Woodpeckers form the richest in species, the most uniform and the most widely extended group of all genera of birds. They are found in all the regions of the earth [except Australia] where trees grow, and they everywhere exhibit the same mode of life. The Pigeons are almost equally extended and numerous, but they show considerable diversities of form, which may justify the adoption of many distinct genera.

43. *Picus macei*, Vieill., Temm., Wagl. Syst. no. 26.

Supra nigro alboque fasciatus, subtus sordide albus lateribus pectoris nigro striolatis; crisso definite rubro; rectricibus nigris lateralibus fasciis integris albis. Rostrum longitudine cranii.

Capillitium: ♂ rubrum; ♀ nigrum. Longit. 7 poll. Ala 100 millim. (E subdiv. *Pici majoris*.)

This species has so much resemblance to our Little Woodpecker (*P. minor*) that one might easily regard it as a variety of the latter, which in a warmer climate has attained a somewhat purer and more definite coloration. I only saw the bird twice, in the month of March. The Bengalese name was said to be *ghot ghotta*, which in fact is merely a slightly different pronunciation of the fore-mentioned name, or a diminutive of it.

[To be continued.]