XXVII.—Notes on the Fruit-Pigeons of the Genus Treron. By Alfred R. Wallace.

In the 'Nederlandsch Tijdschrift voor de Dierkunde,' 1863, p. 73, is a paper by Prof. Schlegel on some species of Treron, in which he declares that "most naturalists are ignorant of the laws which rule the coloration of the plumage in these birds," and "that even in the work of Bonaparte one finds constantly repeated the very common error, that the females have constantly a different plumage from that of the males." And further on he states that, in all the species allied to Treron aromatica and T. vernans, "as a general rule, the perfect plumage of the adult females does not differ from that of the adult males."

Having myself collected some hundreds of specimens of Treron of almost all the species inhabiting the Malay Archipelago, and having found, by personal dissection of the specimens, that in almost all the species the sexes differ greatly, I was of course very much surprised at the above statements. On looking over my specimens, however, I see no reason to alter my opinion. Of Treron capellei, Bp., T. aromatica, Gm., T. nipalensis, Bl., T. griseicauda, Gr., T. pulverulenta, Wall., T. fulvicollis, Wag., T. olax, Temm., and T. vernans, Gm., I have adult females strikingly different in coloration from the males. I believe any ornithologist by a mere examination of the specimens would be satisfied that such is the case; but I have the further evidence of having in many cases found large masses of ova in these female birds, and also in the fact that they were in many cases shot from the same flock with the males, that they occurred in nearly equal quantities, and that in a large series of female specimens the characters are as uniform and constant as in the males, which certainly would not be the case were they immature birds, or in the act of changing their plumage. I am therefore forced to the conclusion that, the Malayan Collections in the Leyden Museum having been generally formed through the agency of native bird-skinners (most of whom I have myself employed as hunters), the sexes of the specimens have not been accurately determined.

I will now make a few observations on the species mentioned

by Prof. Schlegel, and point out one or two corrections of their synonymy.

TRERON AROMATICA, Gm. Prof. Schlegel says, "This species comes from the Philippine Islands, and not from Amboyna as Brisson has indicated," and gives as synonymous T. axillaris, Gr. & Bp. In my paper on the "Birds of Bouru" (Proc. Zool. Soc. 1863, p. 33) I have established the accuracy of Brisson's locality, and after a century of confusion set at rest the question of what is the true T. aromatica, by the discovery in the island of Bouru of a bird agreeing in the most minute particulars with Brisson's description of his "Columba viridis amboinensis." The hunters I employed in Bouru were natives of Amboyna, and they assured me the bird was also found there, though only in the districts remote from the town. It is very curious that this species, one of the earliest described of its genus, and inhabiting a small island which is the European emporium of the far East, should never have been brought to Europe since the time of Brisson; for I presume that if a specimen existed in any museum, its agreement with the accurate description of that author would have been before this pointed out. It is a most beautiful and delicately coloured species, and is further interesting as marking the extreme eastern range of the genus, which is essentially characteristic of the Indian region. The Philippine bird, therefore, will retain the name of Treron axillaris, G. R. Gray.

TRERON GRISEICAUDA, G. R. Gray. Prof. Schlegel appears not to have seen the true *T. griseicauda*, which I obtained in Celebes and the Sula Islands, and have compared with the type specimen in the British Museum. (See Proc. Zool. Soc. 1862, p. 344.) I have specimens of a bird from Java, agreeing with those of Prof. Schlegel from the same island, and for which I propose the name of Treron pulverulenta.

This species differs from *T. griseicauda* in its smaller size, less brilliant colours on both upper and under surfaces, yellower bill, in the black band on the tail being very ashy and ill-defined, and the orange-brown spot above the shoulder almost obsolete. The rich brown colour of the back and wing-coverts extends less over the wings, and it, as well as the whole upper surface, has a

powdery-grey appearance (as noticed by Prof. Schlegel), from which I have derived the name proposed for the species. It is undoubtedly very closely allied to T. griseicauda, and might well be treated as a slight geographical variety of that species; but in the present difficult genus, where forms very different in structure are often deceptively alike in plumage, it seems advisable to define and name every constant form, especially where it possesses a distinct geographical habitat.

TRERON NASICA, Schlegel. I have a male specimen of this curious bird from Sumatra, collected by myself. It agrees exactly with the description given, except that it is rather larger, instead of smaller, than the last-mentioned bird from Java. This will come in the subgenus *Toria* of Hodgson, agreeing with *T. nipalensis* in the frontal plumes advancing to the horny part of the bill. *T. curvirostra*, Gm., is probably a female or immature specimen of this bird.

TRERON FULVICOLLIS, Wagl. I obtained both sexes of this species in Sumatra, which locality must be added to those mentioned by Prof. Schlegel.

TRERON OLAX, Temm. Add Malacca as a locality for this species.

TRERON VERNANS, Gm. This species extends to Penang, from which island my specimen has the head dark slaty, and the lilac of the neck very narrow above. In the Macassar form the head is paler, the forehead and throat greenish, and the pale lilac of the neck is as broad above as beneath. A specimen from Borneo appears somewhat intermediate, though more nearly approaching that from Penang. More specimens from each locality are therefore required before we can determine whether these differences are sufficiently constant to deserve specific appellations.

XXVIII.—A Fifth additional List of Birds from Natal. By J. H. Gurney, M.P., F.Z.S.* (Plates VIII. & IX.)

THE following species have (with one exception) been forwarded

^{*} See 'Ibis,' 1859, p. 234; 1860, p. 203; 1861, p. 128; 1862, pp. 25, 149.