

quill-feather or primary of which is the longest, except in the genus *Aithurus*, where it is exceeded by the second; primaries ten in number; tarsi and feet very diminutive; tail consisting of ten feathers. The entire structure adapted for aerial progression.

#### Subfamily I. PHAETHORNITHINÆ.

I commence my first volume with that well-marked section of the family comprising the genera *Grypus*, *Eutoxeres*, *Phaethornis*, and their allies. The members of all these genera are remarkable for being destitute of metallic brilliancy, and, as their trivial name of "hermits" implies, for affecting dark and gloomy situations. They constitute, perhaps, the only group of the great family of Humming-Birds which frequent the interior of the forests, and there obtain their insect food, some from the undersides of the leaves of the great trees, while others assiduously explore their stems in search of such lurking insects as may be concealed in the crevices of the bark. It has been said that spiders constitute the food of many species of this group; and I believe that such is the case, for we find the bills admirably adapted for their capture, particularly those of *Grypus* and *Eutoxeres*. To individualize by name any particular country in South America in which these birds are found is unnecessary, for they are generally distributed over its temperate and hotter portions; but they are not to be met with either very far north or very far south of the equator; that is to say, their range is bounded northwardly by Southern Mexico, and southwardly by Bolivia. Within these limits, the high and the low lands are alike tenanted by them; but it is in the equatorial region that they are the most numerous, and where all, or nearly all, the genera have representatives. In the colouring of their plumage the sexes are generally alike. As a whole, they form a well-marked division, distinguished by their own especial peculiarities of form and style of plumage.

#### Genus GRYPUS, *Spir.*

This form, which comprises two species, both natives of Brazil, is remarkable for the bill of the male being different in structure from that of the female.

1. GRYPUS NÆVIUS . . . . . Vol. I. Pl. 1.  
*Phaethornis navius*, Jard. Nat. Lib. Humming-Birds, vol. ii. p. 152.  
*Ramphodon navius*, Reichenb. Aufz. der Col. p. 15; Id. Troch. Enum. p. 12; Cab. et Hein. Mus. Hein. Theil iii. p. 3.  
*Habitat.* South-eastern Brazil.
2. GRYPUS SPIXI, *Gould* . . . . . Vol. I. Pl. 2.  
*Ramphodon chrysurus*, Reichenb. Aufz. der Col. p. 15; Id. Troch. Enum. p. 12?  
*Habitat.* Brazil.

The law of adaptation is perhaps equally carried out in every one of the multiplied forms, not only of ornithology, but of every other department of nature's works, each being constructed for some given purpose contributing to the well-being of the animal; in some instances, however, particular developments are more striking and singular than in others. The form to which the generic name of *Eutoxeres* has been given is a case in point. Of this remarkable genus two species are known, both of which are natives of the Andes of Ecuador, New Granada, and Veragua. It would be most interesting to become acquainted with their peculiar modes of life, and to ascertain for what end their singularly curved bills were designed. Some persons affirm that it is for the purpose of probing the scaly covering of the upright stems of certain trees, and others for the exploration of peculiar cup-shaped flowers, such as that of the orchid which I have figured in the plate of *Eutoxeres Aquila*. Whatever may be the design, future research must determine it; all that we at present know is, that this form does exist, and that there is no other which approaches to it. In size the two species are very similar; but there are good and plain specific characters by which they may be distinguished, and which will, I trust, be sufficiently apparent on reference to the plates in which the birds are represented.