

the various genera. The outer feathers of the *Oreotrochili* are narrow, rigid, and turned inwards: this calliper-like form one might suppose would assist, in combination with the lengthened hind toe and claw, in supporting the bird on the sides of rocks; and we find that this is really the case; for Mr. Fraser informs me that he has seen several of the *Oreotrochilus Pichincha* clinging, half-benumbed with cold, on a ledge of rocks during one of the frequent snow-storms which occur on Pichincha. Quinarians would pronounce this to be the scansorial type among Humming-Birds. Now I think we may fairly infer that many of the other structures above alluded to are equally adapted for some peculiar purpose; yet there must be exceptions to this hypothesis, since the structure of the caudal feathers is in many instances totally different in the two sexes of the same species.

Nothing has yet been said respecting the legs and feet. Diminutive as they are, they will be found to be very diversified. In some instances the tarsi are bare, in others they are thickly clothed, as in the *Eriocnemides*; in some the toes are very diminutive, and are furnished with equally small, rounded nails; in others all the toes, particularly the hinder one, are greatly developed and armed with long, curved, and extremely sharp, spine-like claws. This latter form is admirably adapted for clinging to the petals of flowers, a habit common to many members of the family, which not only settle upon, but thrust their spiny bills through the bell-shaped flowers. The power these little birds possess of clinging to the branches is very remarkable; they hang on with their little feet and hooked claws like bats, with such pertinacity that I was often fearful of dislocating the legs of my living birds when attempting to remove them from their perch.

I may mention here, although somewhat out of place, that the skins of *Pterophanes Temmincki* have a strong musky smell, very similar to that exhaled by the Petrels. I consider this merely a coincidence; for although I am aware that many species of Humming-Birds fly close to the surface of the water, they are merely hawking for insects among the aquatic plants peculiar to such situations.

It is the great diversity of forms in this family of birds which renders the study of them so very interesting. If these little objects were magnified to the size of Eagles, their structural differences would stand out in very bold relief, and the many marked generic distinctions they present would be far more clearly perceptible.

The preceding remarks have reference to such points of structure as may be considered to have an influence on the well-being of the birds. I shall now say a few words on those parts of the plumage which apparently are given for the purpose of ornament only:—the crests of *Cephalepis* and *Orthorhynchus*; the beards of *Ramphomicron* and *Oxygogon*; the ear-tufts of *Petasophora* and *Heliothrix*; the elegant appendages to the neck of the *Lophornithes*; the singular plume-like under tail-coverts of *Chalybura*, which in their structure and snowy whiteness strongly remind one of the corresponding feathers of the Marabou Stork, &c.

The members of most of the genera have certain parts of their plumage fantastically decorated; and in many instances most resplendent in colour. My own opinion is, that this gorgeous colouring of the Humming-Birds has been given for the mere purpose of ornament, and for no other purpose of special adaptation in their mode of life—in other words, that ornament and beauty merely as such was the end proposed—especially when we remember that the plumage of Humming-Birds seems to follow a general rule