

expected. The bird does not usually glide through the air with the quick darting flight of a Swallow or Swift, but continues tremulously moving its wings while passing from flower to flower, or when taking a more distant flight over a high tree or across a river. When poised before any object, this action is so rapidly performed that it is impossible for the eye to follow each stroke, and a hazy semicircle of indistinctness on each side of the bird is all that is perceptible. "The wind produced by the wings of these little birds," says Mr. Salvin, "appears to be very considerable; for I noticed that while an example of *Cyanomyia cyanocephala* which had flown into the room was hovering over a large piece of wool, the entire surface of the wool was violently agitated." Although many short intermissions of rest are taken during the day, the bird may be said to live in air—an element in which it performs every kind of evolution with the utmost ease, frequently rising perpendicularly, flying backward, pirouetting or dancing off, as it were, from place to place, or from one part of a tree to another, sometimes descending, at others ascending; it often mounts up above the towering trees, and then shoots off like a little meteor at a right angle; at other times it quietly buzzes away among the little flowers near the ground; at one moment it is poised over a diminutive weed, at the next it is seen at a distance of forty yards, whither it has vanished with the quickness of thought. During the heat of the day the shady retreats beneath the trees are very frequently visited; in the morning and evening the sunny banks, the verandahs, and other exposed situations are more frequently resorted to.

The foregoing remarks are from personal observation of the habits of *Trochilus Colubris*; and I have been informed by Mr. Salvin and others that a similar action characterizes most of the species. I believe, however, that those members of the Trochilidæ which are furnished with more ample wings, such as the species of the genera *Aglaæctis*, *Ramphomicron*, *Pterophanes*, and *Patagona*, have a very different mode of flight, move their wings with diminished rapidity, and pass much more slowly through the air. Mr. Darwin, when speaking of the *Patagona gigas*, says, "Like others of the family, it moves from place to place with a rapidity which may be compared to that of *Syrphus* among Diptera, and *Sphinx* among Moths; but whilst hovering over a flower it flaps its wings with a very slow and powerful movement, totally different from that vibratory one, common to most of the species, which produces the humming noise. I never saw any other bird, where the force of its wings appeared (as in a butterfly) so powerful in proportion to the weight of its body. When hovering by a flower, its tail is constantly expanded and shut like a fan, the body being kept in a nearly vertical position. This action appears to steady and support the bird, between the slow movements of its wings."

In the intervals of flight, I believe that they not only rest in the ordinary way, but even pass some time in sleep; at least I found that this was the case with my living birds, and that from this state of partial torpor they were not easily aroused. In the morning and evening they were far more animated than at any other period of the day; and they would even perform their buzzing evolutions round their cage, and sip from their little bottle in the night-time, if a light was brought into the room. They usually sat in a moping position, with the bill in a line with the body, or slightly elevated, after the manner of the Kingfishers. I never saw them hang by their feet and sleep with their heads downwards—a position which I have been informed is sometimes assumed by Humming-Birds.

When we have compared the wings of *Calliphlox amethystinus* with those of *Patagona gigas*, we have noticed the two extremes of development in these organs; but many intermediate forms exist, and each modification has doubtless an influence on the mode and power of flight. I cannot leave the subject of the