

the hummingbird, while the swallow shows an entirely different pattern, closely resembling that of the finches.

'Again, the breast-bone, or sternum, is a bone of great importance in all flying birds, as it gives origin to the powerful muscles which move the wings. Here, too, the swift and the hummingbird show a similar model, the swallow and the finch another.

'The swallow is not a singing bird, yet upon dissection, the syrinx, or organ of voice, at the lower end of the windpipe, is found in one of its most highly developed forms, as in the true songsters. Ages of disuse do not seem in this instance to have caused a degeneration of the organ. Upon the swift and the hummingbird, on the other hand, no reproach can be cast for neglect of musical talent. In them the syrinx is of an entirely different and much simpler form.

'The foot of a swallow is, though comparatively small and feeble, that of a true percher. It is covered with *scutella*, or scales, and has the power of moving the hind toe independently of the other toes; this is indispensable for the grasping of a perch. The swift's foot, unlike that of all other birds, is covered with smooth skin. The hind toe is lacking in the power of independent motion, and in some of the genera is turned forward alongside the others, instead of having an opposing action like a thumb. Accordingly the posture of a swift when at rest is either clinging to a vertical surface or squatting flat upon a level one; whereas, a swallow may often be seen perching on a twig or wire.

'Lastly the swifts and hummingbirds have ten primary feathers in the wing and ten in the tail, while the swallow and the singing perchers have only nine in the wing but twelve in the tail.'

For these reasons, then, among others, the swifts have been removed from their old proximity to the swallows, and grouped with the hummingbirds and the goatsuckers, or nighthawks, under an order called the *Macrochires*, or long-handed-ones, in allusion to the great length, comparatively, of the outer joint of the wing, corresponding to the hand in man.

The Cypselidæ are world-wide in their distribution, species of one or more of their six genera being found in every continent and in Australia, all remarkable for their wonderful power of flight and for their