

foot is suitable for climbing, that of the swift being weaker and fitted mostly for clinging.

The next striking feature is the great length of the wings, the distance from tip to tip when fully extended being more than $2\frac{1}{2}$ times the extreme length of the body. The ratio of these two measurements in most land birds is about as $1\frac{1}{2}$ to 1. In the swallows it only reaches 2 to 1; and the proportion shown in the chimney swift is only exceeded, if at all, by one or two of the hawks and some of the long-winged seabirds, as the frigatebird and the wandering albatross.

Referring to the latter it is worthy of notice that in these seabirds the great stretch of wing is due to the lengthening of the inner joint or *humerus*, the other bones being comparatively short, while in the wing of the swift and all birds of the same order the proportion of the bones is exactly reversed. The *radius* and *metacarpals*, or forearm and hand, make up almost the whole of the wing, the inner joint being so short that the carpal angle is almost covered by the feathers of the shoulder. And there is a corresponding difference in the style of flight. The seabird propels itself by long measured sweeps, or soars for whole minutes without a movement, whereas the wing of the swift is constantly a-quiver as he darts and dives hither and thither after the insects that make up his food. Much as the swallows resemble the swifts in colour, size and habit, it is not difficult to distinguish between them when on the wing. The motions of all the swallows are more measured and graceful, being guided by the long rudder-like tail, while the swift might be compared to a short boat without a rudder but having very long oars, not quite suited for following a perfectly straight track, but making splendid time and brilliant steering on a very tortuous course. The small flattened and curved bill looks at first sight ill-suited for its duty of capturing insects in rapid motion, but it will be noticed that the mouth is cleft far beyond the base of the bill, reaching to a point just below the eye, and when wide open the gape is really very great. There is an eyebrow or shade over the eye to protect it from the glare of the sun. A similar feature is seen in some eagles, which have a prominent bony shelf above the eye. That of the chimney swift, however, is formed entirely of feathers.

These birds are late comers with us, most of the swallows generally