

## Genus LOXIA.

GEN. CHAR. *Beak* moderate, strong, compressed, the two mandibles equally curved, hooked, and crossing each other at their tips. *Nostrils* basal, round, concealed, under hairs directed forwards. *Toes* three before and one behind, the former divided. *Wings* moderate, the first quill-feather longest. *Tail* forked.

## PARROT CROSSBILL.

*Loxia pityopsittacus*, *Bechst.*

Le Bec-croisé perroquet.

THE Crossbills, although evidently allied in their general habits to the Pine Grosbeak (*Corythus enucleator*, Cuv.), exhibit many circumstances in their general œconomy which are as yet far from being satisfactorily understood. The rigorous climate of the regions they frequent, and the deep seclusion of the pine groves where they find food and shelter, alike prohibit the naturalist from minutely inspecting them throughout every portion of the year: hence, though it is well known that the plumage of every species undergoes singular and contrasted changes, still it is yet a matter of doubt whether these changes are the result of a double moult, or produced by a change of colour in the feathers themselves from one tint to another, the moult being but single. Capable of bearing extreme cold, it is only in the highest northern latitudes that they breed in spring or summer, building their nests and breeding in our temperate latitudes in the inclement season of winter, and returning, as spring comes on, to their retreats within the arctic circle.

Of this genus the Parrot Crossbill is one of the rarest. In England it has been taken so seldom, as scarcely to claim a place among our accidental visitors. In Poland, Russia and Germany it is a bird of passage, being spread throughout the pine forests in winter, and returning northwards with the return of spring. In France and Holland its visits are accidental.

The Parrot Crossbill may be considered as the type of the limited genus to which it belongs,—a genus at once distinguished by the singular formation of the beak, the curved mandibles of which cross each other so as to produce an appearance of having been unnaturally distorted. This mode of construction, however, is a wise provision of nature, for the purpose of enabling the bird to separate the hard scales of the fir-cones covering the seeds which constitute its principal subsistence. These seeds it obtains by bringing the points of the mandibles from their crossed position and placing them in apposition. The points thus brought together are insinuated between the scale and the body of the fir-cone, and the mandibles are then separated by a powerful muscular lateral effort. The seed is at the base of the inner side of the scale, and is removed by the hard tongue of the bird while the scale is held apart from the cone. In the present species the bill is strong, large at its base, and much crooked; in the other species its structure is more slight and the curve of the mandibles less decided.

According to M. Temminck, the colouring of the male in its adult state consists principally of greyish olive; the cheeks, throat and sides of the neck ash-coloured; on the head there is a number of brown dashes bordered with dull greenish; the rump is yellowish green, as are also the breast and under parts, but with a shade of grey; the sides are dashed with blotches of dark grey; quill- and tail-feathers dark brown edged with greenish; irides and tarsi brown; beak dark horn colour.

The young males of the year are greenish brown with dashes of brown on the head and back; the under parts whitish grey with longitudinal spots of brown; rump and tail-coverts tinged with green. After the first moult, to the age of a year, the plumage exhibits a singular change, being of a beautiful crimson red, more or less pure, as M. Temminck states, according as the individual approximates to the period of the second moult, which occurs in April or May, when the quills and tail-feathers are black edged with reddish. It is however, we suspect, still doubtful whether this state of plumage is indeed that of winter or of an immature condition: if so, it is not a little remarkable that in this respect the birds of this genus should form an exception to the general rule which gives the richest hues to maturity and the season of love.

The female differs little from the plain-coloured young males of the year. The upper parts are greenish grey with dashes of brown; the rump yellowish; the under parts ashy with a slight tinge of green passing into white towards the vent and under tail-coverts.

The figures in the Plate are of the natural size, and represent the variations in colour common to this species.