

CANADIAN HUMMINGBIRDS.

BY W. E. SAUNDERS.

(Read before the Ornithological Section of the Entomological Society of Ontario.)

Hummingbirds belong to the order Macrochires, which includes, so far as Canada is concerned, only the Goatsuckers, Swifts and Hummers. Of these families the first two are separated from the third by the presence of more than 6 secondaries, a short broad bill with deeply cleft gape, and the absence of metallic-coloured plumage. The principal characters of the Hummingbird family are:—secondaries 6, a slender, often attenuated bill, gape not deeply cleft, colours of the plumage more or less metallic.

The family embraces many genera and about 400 species, entirely confined to America, and most of this large number are residents of the South only.

Among the many species in the tropics there are, as one might suppose, many curious forms. Some of them have very long tail feathers, while one at least has the bill longer than all the remainder of the body, a character not known elsewhere among birds. The colours exhibit all of the most brilliant tints, and often the most striking contrasts: one bird, mostly metallic green, having pure white tail feathers and coverts. The tongue is protrusive, as is that of the Woodpeckers, and is composed of two tubes for obtaining honey from the nectaries at the base of a flower.

The breast bone is very large, with an enormous keel to accommodate the immensely developed muscles which are required to move the wings at the great speed usual with these birds. The reason for this extremely quick wingbeat is that the upper arm bone is very short, and it is a fact that birds which have this bone very short must use quick wingbeats, while a long one produces a slower beat or a sailing flight. Thus the Grouse and Quail have a short upper arm, and the Gulls and Buzzards a long one.

All the Hummers ranging into Canada were formerly included in the genus *Trochilus*, but in more recent years the species therein contained have been mostly placed in other genera, whose