

INTRODUCTION.

while in others it is so broad as to extend over the whole of the chest. The legs are of a slaty blue; and the naked space surrounding the eyes is usually of the same colour with the legs; in three species only is it crimson. The bill varies much in colour, and is subject to variation in this respect, even in the same species, according to the age of the individual: the general distribution of the colouring of the bill seems, however, to be constant. In its proportion to the size of the bird, the bill also varies with the age and sex of the individual, but seems to be constant in each species in the adult state. It also differs, according to the species, in the greater or less convexity of its sides; in the sharpness or roundness of its upper edge; and in the smoothness or jaggedness of its cutting edges.

A. The first section of the Toucans comprehends those in which the upper tail-coverts are yellow. In the whole of these the throat is white, with a faint tinge only of yellow; and the crimson band by which it is separated behind from the black of the under surface is of small breadth. All of them have the upper edge of the bill yellow, and a broad band of the same colour surrounding its base, this band being separated by a narrow line of black from the adjoining parts of the head and face. This section comprehends three species:

1. *Ramph. culminatus*; with the mandibles compressed laterally and wholly black, except the culminal and basal bands, which are pale straw yellow.
2. *Ramph. Cuvieri*; with the bill more attenuated than in *culminatus*; the mandibles convex and blackish brown, except the greenish yellow culmen and basal belt of the same colour, which is bounded before by a broad, and behind by a narrow, band of black.
3. *Ramph. erythrorhynchus*; with the entire bill red, except the yellow culmen and basal band, and the black borders of the basal band and cutting margins.

B. In the second section of the Toucans but one species is comprehended. It is characterized either by the total absence of the scarlet pectoral band, or by having it so faint as to be scarcely perceptible. The upper tail-coverts are white, exceed the ordinary proportions, and equal in length about one half of that of the tail-feathers. The throat is white; the space surrounding the eyes is red, and the eyelids blue. Such are the characters of

4. *Ramph. Toco*; with the bill rich orange, banded at its base and broadly blotched at its tip with black.

C. The third section of the Toucans comprehends two species, distinguished by the upper