

INTRODUCTION.

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behind forwards, so that the tongue, stiff and unyielding, takes no part in the direction of the food, nor in the formation of the note, which, in the first two species, is confined to the single syllable 'rac.'

"The mandibles are very distinctly dentated at their edges; these dentelations not corresponding at all above and below, nor are they even relatively symmetrical. The beak itself is a thin osseous sheath filled with a number of empty cellules.

"The eye is large and surrounded by a triangular naked space, puffed up and very pretty.

"The foot is very short and stout, and covered nearly to the heel with long scales, harsh to the touch. The outer toe, as well before as behind, is the longest. The claws are much flattened and curved, as in the Woodpeckers. The tail is composed of ten feathers.

"The Toucan flies at a moderate height and in a straight horizontal line, flapping its wings occasionally with some noise. The flight is quicker than the smallness of the wings would lead one to believe. It perches towards the top of the highest trees, and although unable to climb after the manner of Woodpeckers, it still progresses with speed, hopping from branch to branch. It pays great attention to all that takes place in its vicinity, advancing with fear and diffidence, like the 'Uruca' and the 'Acabes'.

"There is no perceptible difference between the two sexes, nor do I believe that the species exists towards the south beyond 28°, nor that it drinks; it rarely settles on the ground.

"The first species (*R. Toco*) is not rare; it is found near habitations and in the woods, but never in the fields.

"As regards its nidification, it builds in the holes of trees, and hatches two young ones, closely resembling the adults, which feed them until they are able to fly. I have observed that young birds reared artificially always die at the end of two or three months.

"The Toucan hops obliquely and very awkwardly, with the legs separated almost a hand's breadth.

"When it takes young birds from the nest, pieces of meat or fruit, it throws them in the air, as a juggler his balls, and by a quick movement of the beak, repeats this action until the food is in a favourable position for being swallowed, and then by another movement gulps it down its large throat.

"If the mouthful be larger than the orifice of the gullet, the Toucan abandons it without seeking to divide it.

"It is not known how the reproduction of the small species takes place, but it is probably similar to that of the others.

"Buffon has given a beautiful preface to his description of the Toucans, but he is mistaken in thinking that the name of these birds signifies 'feather' in the Brazilian language, and that they have been so called because in lieu of a tongue they have a feather of a cartilaginous (or as it seems to me osseous) substance. He is also in error in stating that the bill is both useless and an encumbrance, since it serves as an offensive weapon, and does not impede their flight nor weigh down the head. The flight of the Toucan, on the contrary, is tolerably swift, and by no means awkward or embarrassed, the beak and head being the most elevated parts. Buffon erroneously states also that Toucans perch upon the tops of trees, are easily tamed,