

abruptly backwards and slightly inwards, the margin of the wing thus forming a strongly serrate edge. In the female the outer web of this feather is normal\*.

The tail is of moderate length and nearly square at its tip. The tarsi are short but stout and enclosed in scutes which cover the front and sides and nearly meet at the back; the toes are short and nearly equal in length, the middle toe slightly exceeding the outer one, the innermost being the shortest. The hind toe and claw are strong.

The genus is a purely Neotropical one containing three closely allied species—one, *O. flammiceps*, the oldest and best known, inhabiting South-east Brazil, another, *O. hypoglaucus*, the Guianan Highlands, and the third, *O. frater*, Costa Rica and the State of Panama.

### 1. *Oxyrhamphus frater*.

*Oxyrhynchus flammiceps*, Lawr. Ann. Lyc. N. Y. ix. p. 106<sup>1</sup>; v. Frantz. J. f. Orn. 1869, p. 304<sup>2</sup>.

*Oxyrhamphus frater*, Scl. & Salv. P. Z. S. 1868, p. 326<sup>3</sup>; Ex. Orn. p. 131, t. 66<sup>4</sup>; Salv. Ibis, 1869, p. 314<sup>5</sup>; P. Z. S. 1870, p. 194<sup>6</sup>; Scl. Cat. Birds Brit. Mus. xiv. p. 280<sup>7</sup>.

Viridis, pileo medio sericeo-coccineo utrinque nigro limbato; capitis lateribus griseis, corpore subtus pallide flavo, ambobus nigro guttulatis; alis et cauda nigris viridi limbatis, secundariorum et tectricum marginibus externis late et caudæ apice anguste pallide flavis, subalaribus flavis: rostro corneo, pedibus plumbeis. Long. tota 6.5, alæ 3.6, caudæ 2.2, rostri a rictu 0.8, tarsi 0.75. (Descr. maris ex Calovevora, Panama. Mus. nostr.)

♀ mari omnino similis, remige alarum primo extrorsum haud serrato.

*Hab.* COSTA RICA (*Carmirol*), San José<sup>1</sup>, Orosi<sup>2</sup> (*v. Frantzius*); PANAMA, Calovevora<sup>3 5 6</sup>, Chitra<sup>6</sup>, Castillo<sup>7</sup> (*Arcé*).

So far as *Oxyrhamphus frater* is concerned little information has come to hand since the account of it was published in 'Exotic Ornithology' in 1868<sup>4</sup>. Even now nothing has been recorded of its habits, food, or of the kind of forests it frequents. At the time that account was written the only other species known of the genus was *O. flammiceps* of South-eastern Brazil; but a few years ago a third species was discovered by Mr. H. Whitely in the mountains of British Guiana, which we described under the name of *O. hypoglaucus*. This last-named bird differs from both its allies by having the under surface of the body white (not pale yellow) spotted with black. We thus have three very closely allied species of this genus each occupying mountainous districts situated very widely apart, and it singularly happens that no one of them occurs in any portion of the Andes or in the mountains of Venezuela. In our country *O. frater* is restricted to a very limited area extending along the mountain-slopes from Orosi in Costa Rica to Calovevora in the State of Panama. We have no information as to the elevations at which *O. frater* is found, but the allied *O. hypoglaucus* affects the mountains of Merume and Roraima between 2000 and 3500 feet above the sea-level.

\* Attention was drawn to this character in the article on *O. frater* in 'Exotic Ornithology,' but it was noticed by Mikan, who, in his 'Delectus Floræ et Faunæ Brasiliensis,' figured the first primary of *O. serratus*, Mikan (= *O. flammiceps*, Temm.).