

stripes are mere hair-lines. As in *duida*, the back in *tucumanum* is unmarked, but so great is the variation in this group it by no means follows that an immaculate back is a constant characteristic of either of these two races.

***Glaucidium brasilianum ucayalæ*, new subspecies**

SUBSPECIFIC CHARACTERS (red phase, 11 specimens. No gray phase ?).—Upper-parts bright argus brown, crown uniform with back, shaft-streaks barely evident or wholly absent; nuchal collar with more or less black; tail somewhat brighter than back, bars poorly developed or almost wanting; darker markings below of about the same color as the back, as heavily developed as in *G. b. duidæ*. 3 ♂: wing, 98–106, tail, 59–62. 5 ♀: wing, 99–106; tail, 58–65 mm.

(Brown phase, 2 specimens).—Less rufescent than red phase, Brussels brown rather than argus brown; shaft-stripes present as hair-lines; tail like back, the black bars faint but complete, markings below the same color as back, and of same extent as in red phase. Averaging slightly larger than *brasilianum*.

TYPE.—No. 237,712, Amer. Mus. Nat. Hist.; ♂ ad.; Sarayacu, Rio Ucayali, Peru; April 19, 1927; Olalla Bros.

RANGE.—Eastern base of eastern Andes from southeastern Colombia to Peru.

Glaucidium brasilianum is a bird of open, scattered growth rather than of heavy forests. We have a large series from the arid Tropical Zone in western Ecuador, but have yet to take a single specimen in eastern Ecuador. From the banks of the Marañon and Ucayali the Olallas have recently sent us a series of a strongly marked form which in its rich, saturated colors appears to express the influences of the humid region in which it lives. Here, also, obviously belongs a specimen from southeastern Colombia, the rich color of which has long excited my interest.

The range of this race is evidently bounded on the west by the extent of the humid Tropical Zone, for as soon as we reach the arid tropics at the Rio Chinchipe in the lower Marañon Valley, we find a bird I am unable to separate from true *brasilianum*. This race is apparently, therefore, segregated in western Ecuador and western Peru from the main area it occupies. In tracing its range southwest in western Peru I have encountered the question of its relationships to *Glaucidium nanum*. Hence, the following notes.

Compared with *Glaucidium b. brasilianum*, the characters of *Glaucidium nanum nanum* (King) and *G. n. vafrum* Wetmore, as shown by 20 specimens, are greater extent of the dark markings below (in this respect resembling *duida*), and heavy spotting on the sides of the breast (present in *jardini* but not (?) in *duida* and only rarely in *brasilianum*);

while in the brown, as well as rufous phase of plumage, the tail is barred with rufous instead of black barred with white.

While I fully agree with Dr. Wetmore that it is highly probable *brasilianum* and *nanum* will be found to intergrade, my material does not demonstrate this intergradation. East of the Andes I have no material south of northern Argentina, but on the Pacific Coast we have a female of *G. n. vafrum* from Moquegua, in southwestern Peru, which is wholly typical of this form, the black tail-bars being double the width of the rufous ones (wing, 107; tail, 76 mm.). Two males from Vitor, Province of Arequipa, about 85 miles northwest of Moquegua, are equally typical of true *brasilianum* (wing, 97.98; tail, 65.68 mm.), the rufous bars in the tail being wider than the black ones, and from this point *brasilianum* occurs northward at least to Ecuador. If between Moquegua and Vitor these forms intergrade, their fusion is doubtless accomplished by the hybridization of a mutant with the parent stock rather than by gradual mergence through climatic conditions.

SPECIMENS EXAMINED

Glaucidium brasilianum duidae.—VENEZUELA: Mt. Duida, 3250 ft., 1 ♂; 4700 ft., 3 ♂; 5000 ft., 1 ♂.

Glaucidium brasilianum tucumanum.—ARGENTINA: Rosario de Lerma, 4800 ft., 3.

Glaucidium brasilianum brasilianum.—ARGENTINA: Santiago del Estero, 2 (brown), 2 (gray). BRAZIL: Matto Grosso, 4 (red), 5 (brown); Bahia, 4 (red), 2 (brown), 2 (gray); Maranhão, 3 (red), 1 (gray); Ceará, 1 (red). WESTERN ECUADOR, 9 (red), 15 (brown), 5 (gray). PERU: Prov. Piura, 6 (red), 4 (brown), 1 (gray); Huancabamba, 2 (gray), 2 (brown); Rio Chinchipe, 2 (brown), 2 (gray); Poroto, La Libertad, 3 (red), 1 (gray); Pisco, 1 (red); Vitor, Arequipa, 2 (red); Ollantaytambo, Urubamba, 9700 ft., 1 (gray; typical).

Glaucidium brasilianum ucayalæ.—PERU: Santa Rosa, upper Ucayali, 1 (red); Sarayacu, Ucayali, 4 (red); Rio Seco, near Moyobamba, 1 (brown); Orosa, Marañon, 2 (red); Puerto Indiana, Marañon and Napo, 3 (red); Apiyacu, near Pebas, Marañon, 2 (red), 1 (brown). COLOMBIA: Florencia, 1 (red).

Glaucidium brasilianum phalænoides.—B. W. I.: Trinidad, 4 (red), 1 (brown), 3 (gray). VENEZUELA: Cristobal Colon, 1 (red), 1 (gray); Cumanaçoa, 2 (red); El Cuji, Lara, 2 (gray?); Ayacucho, Orinoco, 1 (brown).

Glaucidium brasilianum medianum.—COLOMBIA: Bonda, Sta. Marta, 2 (red), 3 (brown), 1 (gray); Barranquilla, 1 (gray).

Glaucidium nanum nanum.—CHILE: Tierra del Fuego, 1 (gray); Punta Arenas, 2 (gray); Angol, 2 int. (gray); Temuco, 4 int. (red).

Glaucidium nanum vafrum.—CHILE: Santiago region, 5 (brown), 4 (gray); Rio Blanco, 1 (gray); Tofo, 1 (gray). PERU: Moquegua, 1 (brown).

Touit purpurata viridiceps, new subspecies

SUBSPECIFIC CHARACTERS.—Resembling *Touit purpurata purpurata* (Gmelin) of Cayenne but entire crown, nape and sides of the head green, like the back; yellow