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A NEW ALLOPATRIC TAXON IN THE *HAPALOPSITTACA AMAZONINA* (PSITTACIDAE) SUPERSPECIES FROM COLOMBIA

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ABSTRACT.—*Hapalopsittaca amazonina velezi*, a new subspecies of Rusty-faced Parrot, is described from the Central Cordillera of the Colombian Andes. *H. a. velezi* apparently occurs sympatrically with *H. fuertesi*, which is raised to species level along with *H. pyrrhops* of southern Ecuador and northern Peru. *Received 15 March 1988, accepted 15 July 1988.*

In the autumn of 1911, Arthur A. Allen and Leo E. Miller collected birds and mammals for the American Museum of Natural History along the centuries-old Quindío trail. Among their many discoveries in the forests below the snow-capped volcanoes of Tolima and Santa Isabel was the Azure-winged Parrot (*Hapalopsittaca fuertesi*), the only member of the genus in the Central Cordillera of Colombia (Chapman 1912, 1917). Although *H. fuertesi* has not been collected since September 1911, recent sight records of *Hapalopsittaca* between Manizales and Salento (Fig. 1), below the Parque Nacional Los Nevados, have been attributed to *H. fuertesi* (see Ridgely 1980a). Unbeknownst to King (1981) and other ornithologists, four specimens of *Hapalopsittaca* collected in 1969 and 1976 near Manizales were deposited in the Museo de Historia Natural, University of Caldas. We were greatly suprised to find that these did not represent *H. fuertesi*, but instead, a new subspecies of *H. amazonina* (Rusty-faced Parrot).

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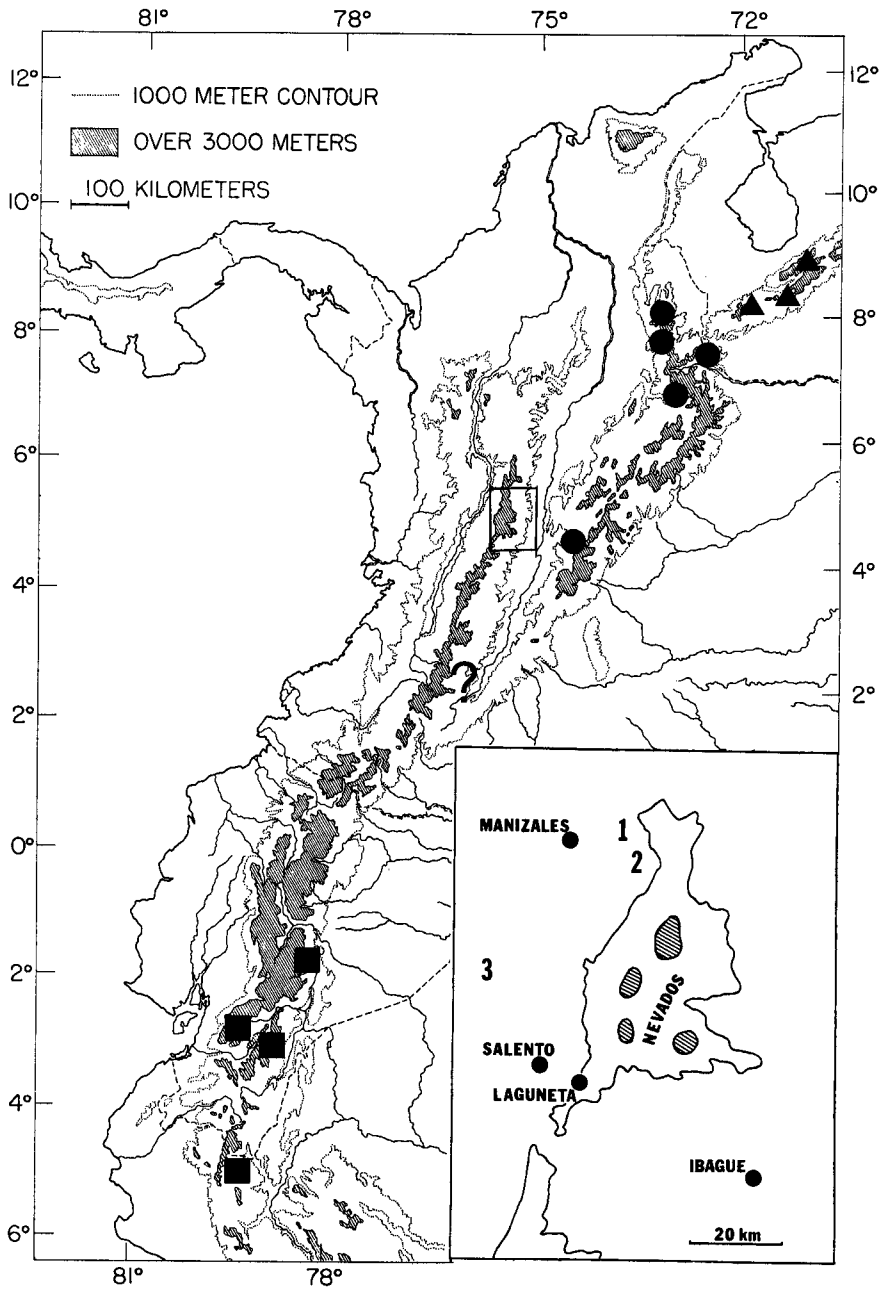
Taxa of the Rusty-faced Parrot (*Hapalopsittaca amazonina*) superspecies of the northern Andes of South America: (upper left) *H. a. amazonina*; (upper right) *H. a. velezi* ssp. nov.; (middle left) *H. a. theresae*; (lower left) *H. pyrrhops*; (lower right) *H. fuertesi.* From a mixed media painting by John P. O'Neill.


81°
78°
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72°
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1000 METER CONTOUR
OVER 3000 METERS
100 KILOMETERS
?
MANIZALES
1
2
3
NEVADOS
SALENTO
LAGUNETA
IBAGUE
20 km

Hapalopsittaca amazonina velezi, new subspecies

HOLOTYPE.—Museo de Historia Natural, Universidad Nacional de Colombia, Bogotá 29823; adult male (115 g) from Cuenca Hidrográfica de "Río Blanco," Municipio de Manizales, 2450 m, Departamento de Caldas, Colombia; collected 20 July 1976 by Javier Arango.

PARATYPES.—National Museum of Natural History (USNM), Smithsonian Institution 606024 and 606025; adult males from Hacienda La Morena (Bosque del Taira), Municipio de Manizales, 2400 m, Departamento de Caldas, Colombia; collected December 1969 by Jesús and Jairo Vélez E.

DIAGNOSIS.—*Hapalopsittaca amazonina velezi* is similar to *H. a. theresae* but may be distinguished from that taxon and *H. a. amazonina, H. pyrrhops,* and *H. fuertesi,* by having a golden olive hindneck and nape that contrasts sharply, instead of being concolorous, with the bright green mantle.

DESCRIPTION OF HOLOTYPE (rounded skin).—Forehead dark reddish brown becoming olivaceous on crown and olivaceous yellow (Analine Yellow; capitalized color names are from Ridgway 1912) on nape and hindneck. Hindneck contrasts sharply with mantle. Mantle, upper back, rump, upper tail coverts, scapulars, secondary coverts, posterior median wing covert, and tertials bright green, bases of feathers darker. Bend of wing, shoulder, lesser underwing coverts, and anterior median wing coverts Scarlet. Alula and primary coverts dark blue, brightest on outer webs and blackish near shaft. Carpal edge of wing mixed pale blue and pink. Primaries dull black with dark blue outer webs. Secondaries bright green with bluish tips and black or bluish black inner webs. From below, inner webs of primaries bright dark blue. Greater underwing coverts and inner webs of secondaries, from below, pale greenish blue. Dorsally, tail dull red at base with bright blue tips, and diffuse greenish band between red and blue portions of inner rectrices. From below, colors of rectrices paler. Lores and extremely narrow band of feathers above cere cream-colored. Cheek dark reddish brown, gradually becoming olivaceous rufous on lengthened feathers of auriculars. Basal portions (most concealed) of cheek feathers and upper chin brighter, varying in color from Flame Scarlet and Orange Chrome to Mars Orange. Chin, throat, upper breast, and breast olivaceous yellow (slightly darker than hindneck), which contrasts with bright pale green abdomen, lower belly, flanks, thighs, and undertail coverts. No contrasting mid-abdominal patch. Soft part colors in life: bill ivory, horn-colored at base; cere dark gray; iris greenish white; feet and tarsi gray; narrow periopthalmic ring dark gray.

←

FIG. 1. Distribution of the *Hapalopsittaca amazonina* superspecies in the Andes of northwestern South America based on specimens examined and literature (Chapman 1917, 1926; Phelps and Phelps 1958; Ridgely 1980b; Ridgely and Gaulin 1980; Hilty and Brown 1986; S. Hilty, in litt.; Parker et al. 1985): triangles = *H. a. theresae*; solid circles = *H. a. amazonina*; squares = *H. pyrrhops*; question mark = unidentified *Hapalopsittaca*; *H. a. velezi* and *H. fuertesi* in inset. Symbols may represent two or more localities.

The continuous lines within the inset approximate the 11,000 ft (3354 m) contour interval. Hatched areas represent the snow-covered volcanic cones of (counter-clock wise from top) Nevado del Ruiz, Nev. de Sta. Isabel, Nev. del Quindío, and Nev. del Tolima, in the Central Cordillera of Colombian Andes. Specimens of *H. a. velezi* have been collected at: (1) Cuenca Hidrográfica de "Río Blanco," and (2) Cuenca Hidrográfica de Gallinazo. *H. fuertesi* was collected below Nev. de Sta. Isabel and at Laguneta in 1911. Unidentified *Hapalopsittaca* have been observed at (3) Santa Rosa de Cabal.

DESCRIPTION OF PARATYPES (taxidermy mounts).—Paratypes differ from the holotype only in minor details: the nape and hindneck of USNM 606024 and 606025 are brighter yellow. Bases of breast feathers are brighter yellow and the distribution of Mars Orange and Orange Chrome on the chin and malar region in USNM 606024 is slightly more extensive.

MEASUREMENTS (mm).—(Holotype; USNM 606024; USNM 606025): wing chord (152, 151, 147); tail (84, 86, 85); culmen from anterior margin of cere (17.6, 18.4, 17.7); greatest width of upper mandible (11.0, 10.9, 10.5).

DISTRIBUTION.—Known only from remnant cloud forest and *Alnus acuminata* reforestation plots (2250–2650 m elevation) above Manizales on the northwestern flank of Nevado del Ruiz, Departamento de Caldas, Colombia.

ETYMOLOGY.—We take sincere pleasure in naming this parrot for Jesús H. Vélez E., Director of the Museum, University of Caldas. He collected the paratypes, prepared the type series, and assisted the research of Uribe in the Río Blanco watershed thus making this description possible.

SPECIMENS EXAMINED.—*Hapalopsittaca a. amazonina.* COLOMBIA: Buenos Aires, Norte de Santander (USNM, 2 ♂♂); Alto del Pozo, Norte de Santander (USNM, 2 ♂♂); El Roble, Cundinamarca (AMNH, 1 unsexed); "Bogota" (USNM, 1 unsexed).

H. a. theresae. VENEZUELA: El Escorial, Mérida (USNM, 1 ♂; AMNH, 3 ♀♀); El Walle, Mérida (AMNH 1 ♂, 1 unsexed); Culata, Mérida (AMNH 1 ♂).

H. a. velezi. COLOMBIA: type locality (Museo de Historia Natural, Univ. Nacional de Colombia, holotype; Museo de Historia Natural, Univ. de Caldas, 1 ♂); Hacienda La Morena, Caldas (USNM, paratypes 2 ♂♂).

H. a. pyrrhops. ECUADOR: Jima, Azuay (AMNH 1 unsexed).

H. fuertesi. COLOMBIA: Laguneta, Quindío (AMNH, 4 ♂♂, 1 ♀, including holotype); Santa Isabel, Risaralda (AMNH, 1 ♀).

DISCUSSION

Ecology.—Data on the ecology and population status of *H. a. velezi* are scarce. *Hapalopsittaca* sp. have been reported intermittently in the remnant forests and plantations above Manizales since 1969. J. Vélez and Uribe observed five or six flocks each, between 1980 and 1985; the last sighting consisting of a flock of 25 birds observed by both individuals in a planted woodlot (*Alnus acuminata*) in the Gallinazo watershed.

The testes of the holotype were in non-breeding condition (drawings on label: 3.5 × 1.5 and 4.5 × 2.0 mm) and its stomach contents were reported to be "seeds and fruit."

Systematic relationships.—*Hapalopsittaca pyrrhops* (Salvin 1876) (Red-faced Parrot) and *H. fuertesi* were considered to be species before Meyer de Schauensee (1966) merged them with *H. amazonina,* which consisted of *H. a. amazonina* and *H. a. theresae* (Hellmayr 1915, Peters 1961). Although Meyer de Schauensee presented no rationale for this revision, his taxonomy, which appears to be unjustified, was unchallenged by Forshaw (1973) and Morony et al. (1975). Taxa in this group are undoubtedly more closely related to one another than to *H. melanotis* or species of

Pionopsitta (Peters 1961). This fact and the allopatric distribution of the taxa were probably the reasons for Meyer de Schauensee's merger.

H. fuertesi and *H. pyrrhops* are clearly divergent from one another and the *amazonina* group of subspecies, but share several plumage characters (e.g., blue feather margins on crown; traces of red on the abdomen; lack of extensive deposits of melanins on the forecrown, cheeks, and auriculars) not found in the *amazonina* group. These character states, however, cannot be considered synapomorphies because they occur in *Hapalopsittaca melanotis* and species in the closely related genera, *Pionopsitta* and *Gypopsitta*. While we are unable to confirm the sister-group relationship of *fuertesi* and *pyrrhops*, the "rusty-faced" *amazonina* group of taxa appears to be monophyletic. We thus consider the *H. amazonina* superspecies to be composed of three allospecies: *H. amazonina* (*H. a. amazonina, H. a. theresae, H. a. velezi*); *H. pyrrhops*; and *H. fuertesi*.

The discovery of *H. a. velezi* on the western slope of the Quindío Andes suggests that *H. amazonina* and *H. fuertesi* are sympatric (Fig. 1). The distance between collecting localities for the two taxa is small (<25 km) relative to the dispersal capabilities of *Hapalopsittaca* (pers. obs.), and no geographic barriers occur in the intervening area. The chronology of collections, however, necessitates the consideration of other hypotheses. The failure of Allen and Miller to procure *H. a. velezi* in 1911, and its subsequent discovery in the same area some 50 years later may suggest that *H. a. velezi* is a recent immigrant that either replaced or displaced *H. fuertesi*. Because the avifauna of the Central Cordillera is still imperfectly known, we consider the chronological coincidence to be the result of sampling artifact (cf. Hilty and Brown 1983). For instance, Allen and Miller also failed to collect the parakeet, *Bolborhynchus ferrugineifrons*, at Santa Isabel where it is now locally common (Graves and Giraldo 1987). Miller's field catalog (deposited in the American Museum of Natural History) indicated that all specimens of *H. fuertesi* were collected by their field assistant, Roso, and that neither Miller nor Allen observed the species. We note the possibility that *H. a. velezi* (observed 2250–2650 m) and *H. fuertesi* (collected at ca 3140 and 3810 m) replace each other elevationally. A. A. Allen observed (report dated 29 September 1911, deposited in the American Museum of Natural History) that forest was mostly cleared below 9300 ft (2835 m) on the trail to Santa Isabel. Whether the lower elevational limits of *H. fuertesi* below Santa Isabel were truncated by deforestation can only be surmised.

Recent sightings of *Hapalopsittaca* in the Quindío Andes were identified as *H. fuertesi* with the belief that it was the only member of the genus to occur there (Orejuela and Alberico, unpubl., in Ridgely 1980a; Hilty and

TABLE 1
RANGES AND MEANS OF MEASUREMENTS (MM) OF TAXA IN THE *H. AMAZONINA* SUPERSPECIES

Taxon	Sex	N	Wing	Tail	Culmen	Width upper mandible
H. a. velezi	♂♂	3	147–152 $\bar{x}$ = 150.0	84–86 $\bar{x}$ = 85.0	17.6–18.4 $\bar{x}$ = 17.9	10.5–11.0 $\bar{x}$ = 10.8
H a. amazonina	♂♂	4	147–151 $\bar{x}$ = 149.3	82–84 $\bar{x}$ = 84.0	17.0–17.5 $\bar{x}$ = 17.3	10.6–11.4 $\bar{x}$ = 10.9
H. a. theresae	♂♂	3	146–151 $\bar{x}$ = 149.0	84–85 $\bar{x}$ = 84.3	15.0–17.0 $\bar{x}$ = 16.3	10.0–11.0 $\bar{x}$ = 10.8
	♀♀	3	147–152 $\bar{x}$ = 148.7	85–87 $\bar{x}$ = 86.0	15.7–16.4 $\bar{x}$ = 16.2	10.1–10.6 $\bar{x}$ = 10.4
H. fuertesi	♂♂	4	150–155 $\bar{x}$ = 151.8	87–98 $\bar{x}$ = 91.5	14.9–17.3 $\bar{x}$ = 15.8	10.5–11.9 $\bar{x}$ = 11.1
	♀♀	2	151–153	89	17.1	11.3–11.6
H. pyrrhops	unsexed	1	140	77	16.0	10.7

Brown 1986). Although populations of *H. fuertesi* may still survive, we know of no verified records in the past 75 years. Ridgely and Gaulin (1980:382) reported sight observations of *Hapalopsittaca* at Finca Merenberg, Department of Huila, with "considerable red on the face." These and additional sightings of *Hapalopsittaca* sp. in the Parque Nacional Cueva de los Guacharos (Hilty and Brown 1986) may indicate that the range of *H. a. velezi* extends south along the eastern slope of the Central Cordillera to the head of the Magdalena Valley.

Morphology.—The dearth of sexed specimens with locality data precludes a detailed analysis of morphology. Of interest here is the observation that culmen measurements of *H. a. velezi* do not overlap those of the other taxa (Table 1). Whether this reflects some ecological difference among populations is unknown.

RESUMEN

Se describe una nueva subespecie de lora, *Hapalopsittaca amazonina velezi,* a partir de especímenes colectados en 1969 y 1976 de bosques nublados en la Cordillera Central do los Andes Colombianos. *H. a. velezi* se asemeja a *H. a. theresae* de los Andes Venezolanos, pero puede diferenciarse de este taxón y otras poblaciones de *Hapalopsittaca* del norte de los Andes (*H. amazonina, H. fuertesi, H. pyrrhops*) por poseer la nuca y cuello posterior oliva dorado contrastando fuertemente, en vez de ser concoloros, con el manto verde brillante.

Bandadas de hasta 25 individuos de *H. a. velezi* han sido observadas en los remanentes

de bosque natural y plantaciones con "Aliso" (*Alnus acuminata*) en las cuencas hidrográficas de Río Blanco y Gallinazo y en el Bosque del Taira, en las cercanias de Manizales, Departamento de Caldas.

La presencia de *H. a. velezi* a menos de 25 kms de las laderas del Nevado de Santa Isabel, sitio donde *H. fuertesi* fue colectada en 1911 por última vez, sugiere que los dos taxones son simpátricos. Los reportes visuales de *Hapalopsittaca* hechos recientemente en la región de Salento (Ridgely 1980 a, King 1981) pueden tratarse de *H. a. velezi* en vez de *H. fuertesi*, esta última quizás hoy extincta.

H. fuertesi y *H. pyrrhops* son elevados al nivel de especie. Consideramos a la superespecie *H. amazonina* compuesta por tres aloespecies: *H. amazonina* (*H. a. amazonina, H. a. theresae, H. a. velezi*), *H. pyrrhops*, y *H. fuertesi*.

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