

## On plumage differences in four subspecies of Golden-crowned Warbler *Basileuterus culicivorus* in Venezuela

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El Chiví Silbador *Basileuterus culicivorus* es una especie ampliamente distribuida, que se encuentra en México y América Central, y en Sur América hasta Argentina. Sus tres subespecies pueden dividirse en tres grupos bien definidos, que podrían considerarse como tres especies distintas. En Venezuela ocurren cuatro subespecies. Dos pertenecen al grupo *cabanisi*, Chiví de Cabani, que se distingue por tener la espalda gris, las coberteras subcaudales blancas y la banda de la corona amarillenta (amarillo a veces salpicado con algo de naranja). Las otras dos pertenecen al grupo *auricapillus*, Chiví Corona Dorada, que tiene la espalda oliva, las coberteras subcaudales amarillas y la banda de la corona naranja. Se encontró que la mayoría de las guías de aves tienen descripciones e ilustraciones inexactas del Chiví Silbador en Venezuela. En vista de que existe la posibilidad de que la especie sea dividida en dos o más, consideramos importante aclarar la confusión existente en las actuales ilustraciones y textos de identificación y aportar los datos necesarios para distinguir correctamente las cuatro subespecies pertenecientes a los dos grupos que ocurren en Venezuela.

Golden-crowned Warbler *Basileuterus culicivorus* is fairly common throughout Venezuela, mainly in premontane and montane rain and cloud forests, evergreen and deciduous woodland undergrowth in tropical and subtropical zones, from c.250 m to c.1,800 m, rarely to 2,100 m<sup>3,6</sup>. It is often encountered in pairs or small flocks, the individuals maintaining constant vocal contact and frequently flicking their tails upwards as they forage in the foliage, gleaning from the undersides of leaves at mid and lower levels, often very close to the ground. The species has been divided into three groups that may be species<sup>1,2</sup>. The failure to recognise the clear differences between groups and their treatment in both major texts and illustrations as if they were homogenous and uniform species has led to identification confusion.

The species is illustrated in the major guides with slight inaccuracies. The depiction in both Meyer de Schauensee & Phelps<sup>5</sup> and Phelps & Meyer de Schauensee<sup>7</sup> is captioned *segrex* (part of the *auricapillus* group), giving the impression that the species appears thus throughout Venezuela. However, Hilty & Brown<sup>4</sup> use the identical plate but label the bird *austerus*, a race unknown in Venezuela and part of the *cabanisi* group. Ridgely & Tudor<sup>8</sup> depict the race *auricapillus*, which does not occur in Venezuela, but the book is much used by birders visiting the country, and the text states 'below, uniformly bright yellow', clearly implying the entire species throughout South America.

The bird shown in Hilty<sup>3</sup> is captioned *cabanisi*, incorrectly as it has yellow undertail-coverts. The text states, 'underparts entirely bright golden yellow', apparently referring to birds across Venezuela. The illustration of *cabanisi* in Curson *et al.*<sup>1</sup> erroneously shows a bold yellow coronal stripe and insufficiently pale yellow undertail-coverts.

Mention is made of different subspecies in each of these works, but in all cases inadequately. There are four subspecies in Venezuela, and only one is entirely bright yellow below.

### The four subspecies

Examination of the series of 192 Venezuelan specimens of the species in the Phelps Ornithological Collection (COP), in Caracas, reveals that the two western races, which range from the Northern Cordillera west to the Colombia border, have white undertail-coverts. North-eastern birds and those south of the Orinoco have yellow undertail-coverts. Additionally, there are other

Table 1. *Basileuterus culicivorus* identification.

	CABANISI GROUP		AURICAPILLUS GROUP	
	<i>indignus</i>	<i>cabanisi</i>	<i>olivascens</i>	<i>segrex</i>
CHIN				
white	x			
whitish-yellow		x		
pale yellow			x	
bright yellow				x
THROAT TO VENT				
bright yellow	x	x	x	x
UNDERTAIL-COVERTS				
white	x	x		
pale washed-out yellow			x	
bright yellow				x
BACK				
deep mouse grey	x			
dark greyish-olive		x		
olive			x	
dark citrine				x



Figure 1. Four races of Golden-crowned Warbler *Basileuterus culicivorus*. Top, *B. c. indignus*; second, *B. c. cabanisi*; third, *B. c. olivascens*; bottom, *B. c. segrex*. (Robin Restall)



Figure 2. *B. c. cabanisi*, Rancho Grande, Henri Pittier National Park, Venezuela, October 2003 (Lorenzo Calcaño)



Figure 3. *B. c. indignus*, Perijá, Zulia, Venezuela, April 2004 (Miguel Lentino)

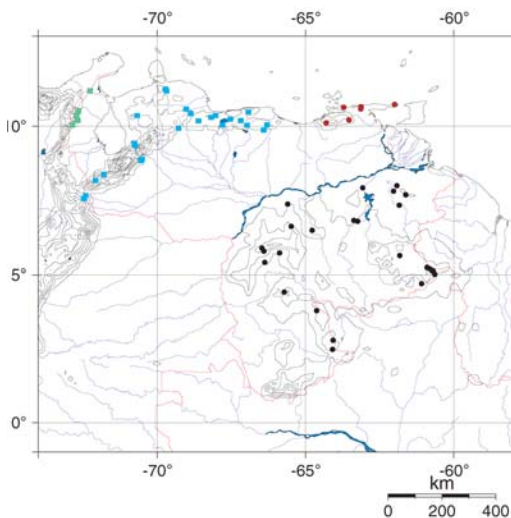


Figure 4. Distribution of Golden-crowned Warbler *Basileuterus culicivorus* in Venezuela. Colour spots are specimen locations. Green squares = *indignus*, blue squares = *cabanisi*, red discs = *olivascens*, black discs = *segrex*.

racial distinctions that are sufficiently different for us to produce this guide to the species in Venezuela.

In preparing the descriptions here, we have included Ridgway's<sup>9</sup> colour references as they are entirely accurate. However, as this work is very scarce, we have also used Smithe's<sup>11</sup> colour guide with supplements, which is in much wider circulation, although it possesses a fraction of the colour samples and the colours usually need to be qualified, e.g., 'lighter', 'darker', etc. Using these references also ensures that a single bird/subspecies can be identified, whereas the usual '...darker than...' inevitably requires side-by-side comparison, a luxury usually only afforded to those with access to a specimen collection. The different subspecies in Venezuela are as follows, from west to east, then south (see both the plate and the map).

#### Cabanis's Warbler group

*B. c. indignus* (33 specimens examined) occurs in Perijá, Zulia state (listed in error for Colombia only by Curson *et al.*<sup>1</sup> and Rodner *et al.*<sup>10</sup>). Below, the chin is whitish and the throat to vent is bright yellow. The undertail-coverts are white. The flanks and thighs are washed pale Citrine (Ridgway pl. IV, Smithe #51). Above it is Deep Mouse Grey (Ridgway pl. IV) or a paler and slightly browner Dark Neutral Grey (Smithe #83), with the remiges and rectrices somewhat browner, contrasting as slightly darker than the grey of the tertials and uppertail-coverts. The coronal stripe is problematic. Most of the 33 birds examined had a yellow stripe, three had yellow with a patch of orange and five were orange, but the stripes were largely concealed by the tips of the feathers, which are a slightly yellower tint of the same grey as the back. The bill is dark with a pinkish base. Legs and feet are yellow.

*B. c. cabanisi* (55 specimens examined) ranges from Táchira through the Andes to the coast, thence east through the Northern Cordillera to Miranda state. Below, the chin is whitish yellow, then bright yellow from the throat to vent. The undertail-coverts are white, with a faint yellow wash only visible in the hand. The lower flanks and thighs are lightly washed with pale Citrine. Above, it is dark greyish olive (Ridgway pl. XLVI) or a slightly darker, more olive Dark Neutral Grey (Smithe #89), with the remiges and rectrices somewhat browner and slightly darker than the grey of the tertials and uppertail-coverts. The coronal stripe is dull orange, but 28 of those examined had half of the orange completely obscured by Citrine. In most cases, in the field we consider that the coronal stripe would appear concolorous with the back, yet in Fig. 2 the stripe shows clear orange. The bill is dark brown, and the legs and feet pale brownish yellow.

**Golden-crowned Warbler group**

*B. c. olivascens* (22 specimens examined) is found in the north-east states of Anzoátegui, Monagas and Sucre (as well as on Trinidad). Below, it is pale yellow to whitish on the chin, bright yellow from the throat to vent, and pale, washed-out yellow on the undertail-coverts. The sides of the breast, flanks and thighs are washed Citrine. Above, it is olive or brownish olive, with the remiges and rectrices somewhat browner (albeit hardly noticeably so), as the fringes of the tertials and secondaries are the same olive as the back. The coronal stripe is orange-brown (Mars Yellow in Ridgway pl. III, almost Cinnamon Rufous in Smithe #40), with narrow olive-brown edging to each feather. The bill is brown to dark brown. The legs and feet are pale yellowish brown.

*B. c. segrex* (82 specimens examined) ranges over most of the country south of the Orinoco. Below, it is entirely bright yellow, well washed with Citrine on the flanks and thighs. Above, it is Dark Citrine (Ridgway pl. IV), somewhat olivaceous Olive (Smithe #30), with the remiges and rectrices somewhat browner but hardly noticeably so, as the edges of the tertials and secondaries are the same olive as the back. The coronal stripe is dull rich orange, the feathers fringed Citrine. The bill is blackish with an orange-brown base. The legs and feet vary from pale yellowish brown to yellow-orange.

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**Appendix**

The birds illustrated are based on the following specimens in the Phelps Ornithological Collection, Caracas:  
COP#55484 *Basileuterus culicivorus indignus*, collected January 1952, Kumana, Sierra de Perijá, Zulia, at 1,200 m.  
COP#64089 *Basileuterus culicivorus cabanisi*, collected May 1958, Cerro El Candelo, Aroa, Yaracuy, at 1,600 m.  
COP#15739 *Basileuterus culicivorus olivascens*, collected November 1941, Quinta La Bonita, Bergantín, Anzoátegui, at 950 m.  
COP#62829 *Basileuterus culicivorus segrex*, collected February 1954, Cerro Tabaro, Cordillera Sur, río Nichare, Bolívar, at 1,000 m.