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## A NEW HUMMINGBIRD FROM SOUTHERN MEXICO

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The genus *Eupherusa*, as presently understood, comprises a small group of hummingbirds ranging from southern México to Panamá. The several recognized species possess a bill that is about as long as the head, with the distal edges of the maxillary tomtia minutely serrate, and have rufous secondaries and a rounded tail as well as undertail coverts that are loose and plume-like with the barbules free from one another. *Eupherusa* is close to the genera *Elvira* and *Chalybura* both of which have minute serrations on the distal part of the maxillary tomtia and possess loose, plume-like, undertail coverts. The latter character is most pronounced in *Chalybura* whose members are known by the vernacular name of "plumeleteers" (see Eisenmann and Howell, 1962).

Ridgway (1911) recognized three species of *Eupherusa*. These were *E. eximia* of southeastern México (Veracruz and Oaxaca), Guatemala and Nicaragua, *E. egregia* of Costa Rica and western Panamá, and *E. poliocerca* of southwestern México (Guerrero and extreme western Oaxaca). He agreed with Elliot (1879) in placing *Eupherusa nigriventris* Lawrence in a separate genus, *Callipharus*. Regarding this relationship he states (p. 399): "Were it not for the strikingly different and quite unique coloration of the adult male, involving structural differences in the feathers of the pileum and under parts (which are beautifully blended and velvety instead of harsh and conspicuously imbricated and squamate), and the decidedly more rounded tail, it might well be merged with *Eupherusa*." Cory (1918) followed Ridgway's arrangement.

Peters (1945:76-77) included *Callipharus* in the genus *Eupherusa*, regarded *E. egregia* as a race of *E. eximia*, and apparently questioned the status of *policerca* by listing it as *Eupherusa (eximia) poliocerca*. This is the treatment followed in the Mexican Check-list (Pacific Coast Avifauna, 1950) and, in essence, by Eisenmann (1955:49). The latter, in a footnote under *Eupherusa eximia* says: "Includes *E. poliocerca*, White-tailed Hummingbird, of s.w. Mexico, which may be entitled to specific status."

We have examined 10 specimens of *Eupherusa poliocerca*, 73 of *E. eximia* (including the races *eximia*, *nelsoni* and *egregia*) and 10 of *E. nigriventris*. On the basis of these specimens, we feel that there is excellent justification for regarding *policerca* as a distinct species. It is separated from other members of the genus by its decidedly larger size, broader outer rectrices (9 to 11 mm. as opposed to 8 mm. or less in *eximia*), and by the color pattern of the tail. In *E. poliocerca* all but the central pair of rectrices have the inner web white except at the tip where it gradually becomes dusky, faintly tinged with bronze, like the entire outer web. In every specimen of *eximia* seen, the tip and outer web of these same feathers are black, and on the inner web the black terminates abruptly instead of blending gradually with the white.

Our interest in this group developed in the summer of 1963 when one of us (Rowley), in company with Dr. Allan Phillips of Mexico City, secured a small series of hummingbirds of the genus *Eupherusa* in southwestern Oaxaca, considerably southeast of the published range of *E. poliocerca*. This rare and little known species has only

been recorded from Chilpancingo and Omilteme in Guerrero and from Putla in extreme western Oaxaca, although two females were collected at Río Jalatengo, Oaxaca, one by Rowley on May 9, 1962 (no. 766563 in the collection of the American Museum of Natural History) and the other by Phillips on May 11, 1962. Included in our series are four males and five females. In many respects they resemble specimens of *E. poliocerca* examined from Guerrero, but the males differ from any known member of the genus in having the frontal area and the crown of the head a brilliant, deep, violet blue. We propose, therefore, that this blue-fronted eupherusa be recognized as a distinct species as follows:

#### *Eupherusa cyanophrys* new species

*Type*.—Am. Mus. Nat. Hist. no. 788920, adult ♂; taken 11 miles south of Juchatengo, 4700 feet, Oaxaca, México, May 9, 1963, by J. Stuart Rowley. Original no. 3162.

*Diagnosis*.—Male: similar to that of *Eupherusa poliocerca* except for head which, instead of being entirely bronze green, is deep blue, changing to violet in certain light, from base of upper mandible to top of crown. Posteriorly, feathers of crown are blue-green, becoming bronze-green on the occiput. Specimens average slightly smaller than *policerca* in bill and wing length.

Female: similar to that of *E. poliocerca* but with less dusky on outer margin of outer rectrices in all specimens examined.

*Measurements*.—Measurements in millimeters of four males of *E. cyanophrys*, including the type, two topotypes and one specimen from Jamaica Junction, 4 mi. north of San Gabriel Mextepec, 2400 feet, Oaxaca, are as follows: wing, 61, 62, 61, 61; exposed culmen, 17.3, 17.6, 17.8, 17.3; those of five males of *E. poliocerca* from Chilpancingo, Guerrero, are: wing, 63, 64.5, 64, 64, 63; exposed culmen, 17.2, 18.3, 17.8, 17.6, 18.1.

*Remarks*.—There is no doubt of the close relationship between *Eupherusa cyanophrys* and *E. poliocerca*, but at present they can hardly be regarded as other than specifically distinct. The striking blue-violet color on the head of the male in *E. cyanophrys* is unique in the genus. Both species come from a region which Berlioz (1932) pointed out as being one of the richest in trochilids in México. Whether evidence of sympatry will ultimately be found we cannot predict, but at present *cyanophrys* appears to represent an isolated population of *Eupherusa* occupying an area of cloud forest that is still essentially unspoiled by human activity.

One of the four males of *cyanophrys*, secured on June 11, was taken in the same general area as the others but at an elevation of only 2400 feet. The forehead of this specimen is a paler blue than that of the other two, and the tail pattern also differs in that the outer three pairs of rectrices are tipped with white. Furthermore, they are narrower; greatest breadth of outermost, 8 mm., second outermost, 8.5 mm. as opposed to 10 and 11 mm. each for the same feathers in the other two specimens. This, we believe to be a male just assuming the first adult plumage. Numerous feathers on the body still have remnants of their sheaths adhering to them. The presence of white tips on one or all of the three outer pairs of rectrices is a character of the juvenal plumage in the males of many hummingbirds.

It would appear that the outer rectrices of the male in *policerca* are also tipped with white in the juvenal plumage. Seven specimens (including five males) of *policerca* from Chilpancingo, Guerrero, belonging to the American Museum of Natural History, were examined. These were collected by O. T. Baron and were formerly in the Rothschild Collection at Tring, England. Hartert and Hartert (1894:61–62) reported on them and were the first to describe the female of this species as well as the nest and eggs which had been found by Baron in October. They did not, however, comment on the plumage of the males. One of these (AMNH no. 481648) has assumed almost com-

pleted adult plumage but still retains an outer rectrix on each side that is tipped with white and decidedly narrower than the outer rectrices of the other four males which are in complete adult plumage. The white-tipped rectrix on the right side is 3.5 mm. shorter than that on the left side. It seems likely that the latter is actually the second from the outermost and that the outermost left rectrix has been lost. Unfortunately there is no information as to the time of year when this or the other six specimens were collected.

**SPECIMENS EXAMINED.**—A total of 103 specimens of the genus *Eupherusa* were examined from the following localities:

*E. cyanophrys*.—MÉXICO, 9: Jamaica Junction, 4 mi. N San Gabriel Mextepec, 2400 ft., Oaxaca, 1; 11 mi. S Juchatengo, Oaxaca, 8.

*E. poliocerca*.—MÉXICO, 11: Chilpancingo, Guerrero, 7; Omilteme, Guerrero, 2; Río Jalatengo, Oaxaca, 2.

*E. eximia eximia*.—MÉXICO, 5: Laguna Ocotál, Chiapas, 5. GUATEMALA, 22: Guatemala City, 5; Cobán Vera Paz, 1; Verapaz, 1; Finca Sepacuite, 6; Finca Sepur, 2; not specified, 7. HONDURAS, 2: Archaga, Tegucigalpa, 1; El Boquerón, Catacamas, Olancho, 1. NICARAGUA, 11: San Rafael del Norte, 8; Jalapa, northern Nicaragua, 1; Matagalpa, 1; Río Grande, 1.

*E. eximia nelsoni*.—MÉXICO, 6: Piedra Blanca, Oaxaca, 1; La Cova, Oaxaca, 2; Lachixola, Oaxaca, 1; Motzorongo, Veracruz, 2.

*E. eximia egregia*.—COSTA RICA, 9: Tenorio, 1, Santa Maria de Data, 4; Navarro, 1; Azahár [de] Cartago, 1; not specified, 2. PANAMÁ, 18: Volcán, 1; Boquete, Chiriquí, 5; Barriles, Chiriquí, 1; Cerro de Punta, Chiriquí, 1; Bogava, Chiriquí, 1; Chitrá Pacific slope, Veráguas, 7; not specified in Veráguas, 2.

*E. nigriventris*.—COSTA RICA, 7: Cariblanco de Sarapiquí, 1; La Hondura, 5; not specified, 1. PANAMÁ, 3: Veráguas, 3.

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We are particularly grateful to Dan B. Bull, of La Mesa, California, who was so impressed by the beauty of this new hummingbird that he commissioned Don R. Eckelberry to paint it especially for this paper.

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