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## A NEW GENUS AND SPECIES OF COTINGA FROM EASTERN PERU

GEORGE H. LOWERY, JR., AND JOHN P. O'NEILL

THE Neotropical family Cotingidae contains a number of bizarre and highly specialized types such as bellbirds, umbrellabirds, and the Bare-necked Fruitcrow. The morphological diversity within the family suggests that the group may be a relatively old one within which the connecting links between many elements have been eliminated, perhaps as members of the family have given way in the face of competition with such eminently successful Neotropical passerine groups as the Tyrannidae and Thraupidae. The possibility that the family Cotingidae, as presently constituted, contains forms that should be allocated elsewhere may also account for some of its heterogeneity. Warter (1966) has recently demonstrated that the mourners (*Rhytipterna*) definitely belong in the Tyrannidae, and he further recommends that the Attilinae likewise be transferred to that family.

Despite the recognized diversity in the cotingas, we were nevertheless surprised when our 1964-65 McIlhenny Peruvian Expedition turned up two female specimens of a cotinga that could not be placed in any known genus. For one thing they possessed dense patches of powderdown that were immediately apparent to us when we each skinned one of the first two specimens. We knew that powderdown had been previously reported in only three passerine species. Consequently, an all-out effort was made to obtain more specimens, even though to do so necessitated another journey by O'Neill to a remote jungle outpost. Fortunately, 13 additional specimens were procured, including additional skins of both sexes, skeletons, and specimens preserved in alcohol. A subsequent study of this material, along with representatives of all previously known genera and species of cotingids, has revealed that our bird is, indeed, not only a new species but a member of a new genus as well (see frontispiece).



BLACK-FACED COTINGA, *Conioptilon mcilhennyi*

A NEW GENUS AND SPECIES FROM PERU

From a tempera painting by John P. O'Neill  
(one-half natural size)

**Conioptilon**<sup>1</sup> gen. nov.

*Type-species.*—*Conioptilon mcilhennyi* Lowery and O'Neill.

*Diagnosis.*—A moderately large member of the Cotinginae that also possesses certain similarities to the Gymnoderinae, each as defined by Warter (1966); tarsal envelope similar to that of *Carpodectes*, *Cephalopterus*, *Pyroderus*, *Gymnoderus*, and certain members of the genus *Cotinga*, but differing in being pycnaspidean distally, tending toward taxaspidean proximally; wings relatively long with wing-tail ratio of 1.5 to 1.6; bill relatively large and depressed and not swollen basally, thus resembling most closely that of *Carpodectes hopkei* and, in general conformation, *Gymnoderus*; rictal and interramal bristles well developed; contour feathers, remiges, and rectrices with a powdery "bloom"; body pterylosis (Figure 1) of contour feather tracts similar to that of other Cotingidae, but with abundant white powderdown on the body (none on the head), scattered through the apteria or concentrated in patches separate from the regular contour feather tracts; dorsally, a thin line of powderdown feathers extending down both sides of the neck parallel to the anterior element<sup>2</sup> of the dorsal tract but offset approximately 10 mm from it, a thick patch on the anterior edges of the saddle, and heavy patches sur-

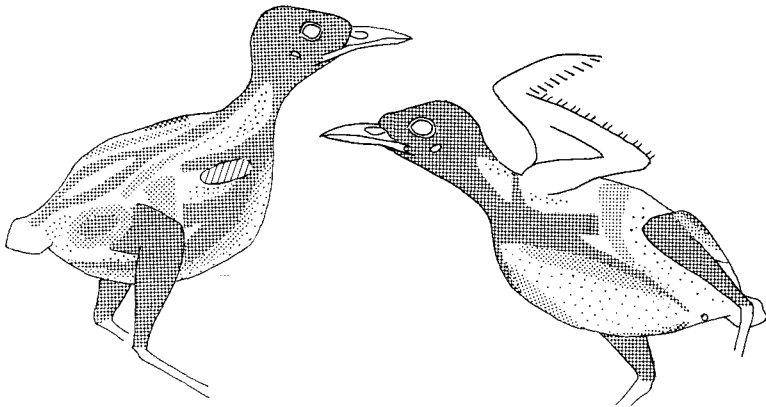


Figure 1. Diagrammatic representation of the pterylography of *Conioptilon mcilhennyi*. Left, dorsolateral view; right, ventrolateral view. Dark screen, contour feather tracts; light screen, powderdown patches; random stippling, areas of scattered powderdown feathers.  $\times \frac{1}{2}$ .

<sup>1</sup> From *κομία* "a fine powder" and *πτίλον* "soft feathers or down under the true [i.e., contour] feathers," referring to the powderdown feathers abundantly present over much of the body.

<sup>2</sup> Terminology of feather tracts based on Heimerdinger, "A study of the morphological variation in the dorsal and ventral pterylae of passeriformes." Ph.D. dissertation, Yale University, 1964.

rounding the femoral tracts; ventrally, a dense patch of powderdown occurring on each side of the body under the wing between the flanks and the saddle, with a thin scattering of powderdown lateral to the anterior ventral tract and a thick lining on the medial side of that tract for its entire length; a scattering of powderdown feathers elsewhere in all except one of the body apteria (an area in the middle of the saddle) and also intermixed with contour feathers in the proximal areas of the wings and legs; structure of syrinx most similar to that of other Cotinginae but specialized in the direction of the more highly developed syrinx of *Gymnoderus* (Gymnoderinae); skull (Figures 2 and 3, Table 1) most similar to that of *Carpodectes*, especially in general conformation, but cranium less truncate posteriorly, frontal plates broader at the level of the frontonasal hinge and less rounded laterally, the foot of each lachrymal more expanded, vomer more slender, postpalatines shorter, interpalatine processes less convergent, and transpalatine processes connected with the interpalatines by a bony shelf; nares holorrhinal, not amphirrhinal as in *Ampelion*<sup>1</sup> and *Phoenicircus*.

*Coloration*.—Body basically gray, with wings and tail black above and gray below; forehead and crown black, becoming gray on occiput; auriculars, chin, and upper throat black.

*Sexes*.—Similar, except that the female averages somewhat smaller and is slightly paler ventrally, especially on the abdomen.

*Range*.—So far as known, along the Río Curanja in the Departamento de Loreto, in extreme eastern Peru.

### ***Conioptilon mcilhennyi* sp. nov.**

#### **Black-faced Cotinga**

*Type*.—Adult male; Louisiana State University Museum of Zoology no. 42781; Balta (at the point where the streams known to the local Cashinahua Indians as the Xumuya and the Inuya enter the Río Curanja), lat. 10°08'S, long. 71°13'W, elevation approximately 300 meters, Depto. Loreto, Peru; 18 March 1965; collected by John P. O'Neill; original number 1452.

*Diagnosis*.—Same as for the genus, of which it is the only known member.

*Description of type*.—Color of the forehead, orbital region, auriculars, jugulum, chin, and upper throat Black (capitalized color names are from Ridgway, 1912), except that most of the feathers of the throat and chin

<sup>1</sup> In our generic nomenclature we follow Zimmer (1930) instead of Hellmayr (1929). Accordingly, "*Heliochera*" becomes *Ampelion*, "*Ampelion*" becomes *Carpornis*, and "*Euchlornis*" becomes *Pipreola*.

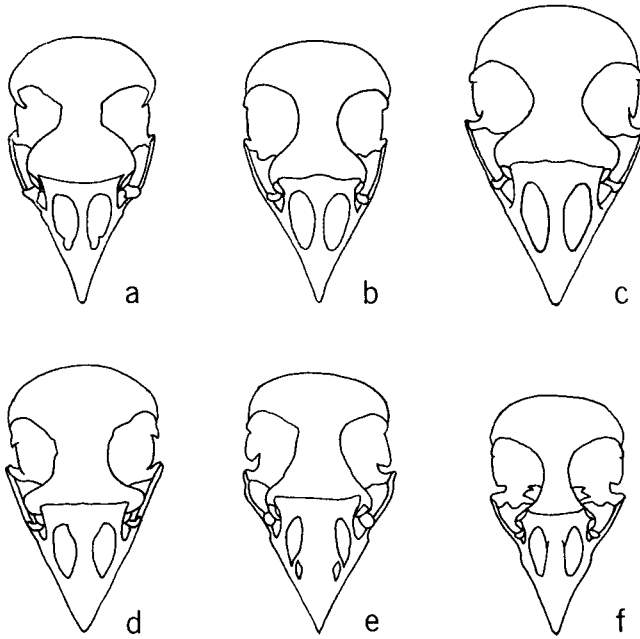


Figure 2. Anterodorsal view of selected cotingid skulls. (a) *Cotinga cayana*, USNM 321618; (b) *Xipholena punicea*, UMMZ 155380; (c) *Carpodectes nitidus*, UMMZ 133889; (d) *Coniopiilon mcilhennyi*, LSUMZ 42900; (e) *Ampelion rubrocristata*, AMNH 6142; (f) *Zaratornis stresemanni*, LSUMZ 42898.  $\times 1$ . (See footnote to Table 1 for abbreviations of museums.)

and a few of those on the forecrown have their central basal portions along the rhachis grayish; also, interspersed among the feathers of the chin and forecrown, are numerous long, stiff, shiny, jet-black feathers with virtually barb-free tips that intergrade in the degree of their nakedness with the rictal and interramal bristles; crown Black, shading to Dark Neutral Gray on the occiput and hind neck; a narrow line bordering the posterior edge of the auriculars Pearl Gray; dorsum Plumbeous; upper tail coverts, upper side of rectrices, and upper side of remiges between Black and Slate-Black; upper side of secondaries and secondary coverts variously between Slate Color and Slate-Black, all with a more or less powdery "bloom"; lower throat, breast, and flanks Cinereous, paler on the abdomen; under tail coverts white, obscurely barred with gray; shafts of the feathers of the entire under parts blackish; individual feathers of the under parts sometimes edged terminally with white and obscurely and irregularly barred with gray, thereby producing, along with their darker shafts, a very slight over-all scaly and vermiculated effect; under side of remiges and rectrices Light Neutral Gray; under wing coverts gray

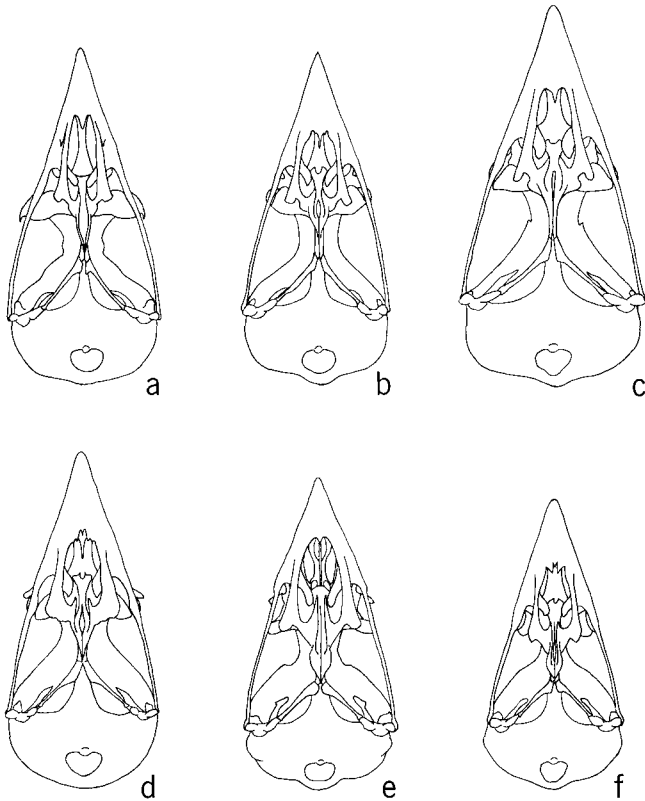


Figure 3. Palatal view of the skulls illustrated in Figure 2. Sequence and scale the same.

vermiculated with white; color in life of the tarsometatarsus and toes olive-gray; bill grayish brown; irises reddish brown.

*Description of female.*—The adult female is like the male except that in the seven skins examined the abdomen is noticeably paler gray, with a slight tendency for the feathers of this region to show more of the fine, almost obscure, vermiculation noted in the description of the type and also observed in the other two skins of male specimens. In the series of females the under tail coverts are variable, with the longer feathers sometimes showing a broad, gray streak along the shaft and with the shorter feathers along the edges of the crissum distinctly barred with gray subterminally. One of the three alcohol-preserved specimens examined (all of which happen to be females) is presumably an immature in its first basic (i.e., first postjuvenile) plumage. In this specimen the black feathers of the head, the feathers of the upper breast, the upper tail

TABLE 1  
MEASUREMENTS IN MILLIMETERS OF SKULLS OF VARIOUS COTINGIDS

Specimen <sup>1</sup>	Total length	Length of cranium <sup>2</sup>	Width of cranium	Width of frontals	Depth of cranium	Inter-orbital width	Length of nasal fossa
<i>Pipreola arcuata</i> AMNH 6167 sex ?	46.1	26.7	20.3	12.6	15.0	5.0	9.2
<i>Pipreola aureopectus</i> AMNH 3819 sex ?	37.2	24.0	27.5	11.5	13.3	3.8	8.1
<i>Pipreola riefferii</i> USNM 428917 ♂	38.1	23.3	17.2	10.9	14.0	3.8	8.1
<i>Cotinga cayana</i> USNM 321618 sex ?	44.0	25.6	19.4	14.4	14.6	5.6	9.4
<i>Xipholena punicea</i> UMMZ 155380 ♂	43.4	25.6	19.6	13.2	15.1	5.0	9.4
<i>Carpodectes nitidus</i> UMMZ 133889 ♂	50.2	29.3	23.2	16.7	17.0	6.8	11.4
<i>Conioptilon mcilhennyi</i> LSUMZ 42900 ♀	44.1	26.4	20.4	16.0	16.9	6.5	7.4
<i>Ampelion rubrocristata</i> AMNH 6142 sex ?	43.2	25.5	19.6	14.0	14.9	4.9	10.0
<i>Zaratornis stresemanni</i> LSUMZ 42898 ♀	38.9	22.9	17.8	10.4	14.5	3.3	8.2
<i>Gymnoderus foetidus</i> USNM 346063 ♂	64.8	37.3	27.5	19.2	18.1	9.3	14.6
<i>Querula purpurata</i> LSUMZ 34792 ♂	56.0	29.4	23.8	16.9	18.1	6.2	10.1
<i>Pyroderus scutatus</i> USNM 321595 sex ?	80.5	41.4	32.5	27.2	24.8	14.1	17.4
<i>Cephalopterus ornatus</i> USNM 54965 sex ?	94.0	47.3	48.0	29.7	25.5	17.1	19.6
<i>Haematoderus militaris</i> UMMZ 159419 ♂	78.5	38.6	33.1	25.9	21.2	14.1	21.7

<sup>1</sup> Abbreviations of museums: AMNH, American Museum of Natural History; LSUMZ, Louisiana State University Museum of Zoology; UMMZ, University of Michigan Museum of Zoology; USNM, United States National Museum.

<sup>2</sup> Measured from the level of the frontonasal hinge.

coverts, and the greater secondary coverts are narrowly tipped with white; the basal halves of the inner webs of the secondaries, both above and below, are broadly edged with white; and the under tail coverts are noticeably barred subterminally with pale gray.

*Specimens examined.*—Fifteen, including skins of three males and seven females, skeletons of one male and one female, and alcohol-preserved specimens of three females, all from the type locality.

*Measurements in millimeters.*—Three males (type specimen first, averages in parentheses): chord of wing, 153, 146, 147 (148.6); tail, 96, 94, 93 (94.5); exposed culmen, 18.3, 16.5, 16.9 (17.2); width of bill at base of exposed culmen, 10.9, 9.9, 10.5 (10.4); depth of bill at base of exposed culmen, 7.4, 6.8, 7.0 (7.1); tarsus, 25.8, 23.4, 24.2 (25.1); middle

toe with claw, 25.6, 23.5, 26.3 (25.1). Nine females (ranges and averages): chord of wing, 139–143 (141.0); tail, 90–96 (91.8); exposed culmen, 16.0–17.6 (16.8); width of bill at base of exposed culmen, 9.7–10.7 (10.2); depth of bill at base of exposed culmen, 6.5–7.4 (6.9); tarsus, 23.3–24.8 (24.1); middle toe with claw, 23.2–26.0 (24.5).

#### REMARKS

In the literature powderdown has been recorded in only three species of passerine birds. Nitzsch (1867) described its occurrence in *Ocypterus* (= *Artamus*) *leucorhynchus* (Artamidae) and Salvin and Godman (1891: 143) noted its presence in *Gymnoderus foetidus* (Cotingidae). A third reference, attributing powderdown to bowerbirds (Harrison, 1964), is almost certainly erroneous. With the discovery of *Conioptilon mcilhennyi*, in which powderdown was found to be present in great patches and well distributed elsewhere over the body, we promptly asked Dr. Mary Heimerdinger, who has made a detailed study of passerine pterylosis, to examine critically one of our wet-preserved specimens of the new species. Much of what is said here about these peculiar feathers is based on her expert and painstaking report to us. Unfortunately, there are still a few genera for which there are no wet-preserved specimens extant from which flat skins can be removed and made available for detailed studies of the pterylosis. However, recent investigations of flat skins have shown that among the Cotingidae powderdown is very strongly developed in *Gymnoderus* and *Conioptilon* and moderately developed in *Iodopleura*. Examination of conventional study skins has revealed well developed powderdown patches in *Carpodectes* and sparse patches under the wings of *Xipholena* and *Tityra*. Representatives of all the other genera of the family (except *Laniusoma*, *Doliornis*, *Tijuca*, and *Chirocylla*) have been examined either as flat skins or as study skins and have been found to lack powderdown or to have only a few powderdown feathers scattered in the apteria.

In *Conioptilon* the distribution of powderdown is similar to that in Nitzsch's figure (1867: pl. 3, fig. 4) of *Artamus leucorhynchus* but differs in several important respects. In *Artamus* the powderdown feathers on the posterior edge of the saddle are part of the saddle rows, and those extending from the lateral edge of the flanks and those around the femorals have the same orientation as the contour feathers in the adjacent tracts. A few additional powderdown follicles are scattered over the remainder of the body. In *Conioptilon* the powderdown is in no case either modified parts or extended parts of the regular feather tracts but is either randomly arranged or occurs in loosely organized "patches" with the same position and orientation as the plumulaceous apterial feathers of other



passerines. On the whole, *Conioptilon* is much more richly endowed with powderdown than is *Artamus*.

*Gymnoderus*, and even in some measure *Carpodectes*, approaches *Conioptilon* in the distribution and abundance of powderdown. But no one would, of course, entertain the thought of uniting these three genera on this basis alone or even of putting all genera possessing powderdown into a single subfamily. As previously noted in the generic diagnosis, the skull of *Conioptilon* is closest to that of *Carpodectes*, but again the two entities can hardly be treated congenerically. The skulls of *Cotinga*, *Xipholena*, *Carpodectes*, *Conioptilon*, *Ampelion*, and *Zaratornis* constitute a nicely graded series. The skull of *Zaratornis*, which we have been able to study for the first time, is so distinct as to preclude making *Zaratornis* congeneric with *Ampelion*, an action recommended by Bond (1956). If *Zaratornis* were placed in *Ampelion* and *Conioptilon* were relegated to *Carpodectes*, one would then have to place them all in *Cotinga*, perhaps along with a number of other genera, including *Carpornis* and *Doliornis*.

In brief, we think that the very strong development of powderdown, the distinctive skull, the basically pycnaspidean tarsus, the drab color and lack of appreciable sexual dimorphism, the great wing-tail ratio, the absence of bare skin or plushlike feathers on the head and neck or any vestige of a crest, and the depressed bill all combine to merit for *Conioptilon* generic distinction. We further believe that *Zaratornis*, *Doliornis*, *Ampelion*, *Carpornis*, *Carpodectes*, *Xipholena*, *Pipreola*, and *Tijuca* are all valid genera and should be maintained. Until skeletal materials of all these genera and others are available and are analyzed critically we would hesitate to propose a revised generic sequence within the subfamily. We believe, however, that of the genera studied *Cotinga*, *Xipholena*, *Carpodectes*, *Conioptilon*, *Ampelion*, and *Zaratornis* should be arranged in that order with respect to each other.

*Conioptilon mcilhennyi* is well known to the Cashinahua Indians of the Río Curanja as "kudën ika," which may be translated as "it says 'kudën'," an allusion to the bird's whistled call. Its nest and eggs, however, are unknown to the Cashinahuas. The junior author observed the birds frequently and noted that they always perched in the forest canopy either in exposed places or within the crown of a tree. They were seen eating fruit and were sometimes associated in the same trees with *Gymnoderus foetidus*, *Gymnostinops yuracares*, *Selenidera reinwardtii langsdorffi*, *Capito niger*, and various tanagers and parakeets. Of the three specimens preserved in alcohol, one had been eviscerated, one had the stomach empty, and paradoxically, the third, a subadult, had the stomach packed with the wings and parts of the exoskeleton of ants that have been provisionally identified as members of the subfamily Myrmicinae.

We take great pleasure in naming this new species for Mr. John S. McIlhenny of Baton Rouge, Louisiana, who sponsored the Louisiana State University 1964-65 Peruvian Expedition and who has manifested unflinching interest in every aspect of our museum's program of research.

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*Museum of Zoology, Louisiana State University, Baton Rouge, Louisiana.*