

REMARKS ON THE AVIAN GENUS MYIARCHUS, WITH SPECIAL  
REFERENCE TO *M. YUCATANENSIS* LAWRENCE.

BY

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The discrimination and identification of the species and geographical races of the genus *Myiarchus* is one of the most difficult tasks with which the student of Neotropical ornithology has to deal, the style of their coloration being remarkably uniform, the species numerous, and their geographical variations perplexing. Some forms once considered specifically distinct, and indeed very different from one another when specimens from distant areas are compared, are connected by intermediate specimens where their respective ranges come together; in some cases (as for example that of *M. cinerascens* and *M. nuttingi*) it is not at all improbable that hybridism plays a part and thus complicates the problem; but in others (e. g., *M. mexicanus* and *M. magister*) the intergradation is on too extensive a scale to warrant serious consideration of hybridism as the probable cause.

Most writers are agreed as to the limits of the genus, the only species involved in a difference of opinion regarding this point being the *M. barbirostris* (SW.), of Jamaica, which some of the best authorities have referred to the Antillean genus *Blacicus*, though I fail to discover wherein it differs structurally or otherwise (except specifically) from the flat-billed *Myiarchi* (*M. lawrencii* and allies). Doubt has been expressed by MESSRS. SALVIN and GODMAN (*Biologia Centrali-Americana*, *Aves*, II, pt. 12, March, 1889, p. 96) as to the propriety of referring *M. flammulatus* LAWR. to the genus *Myiarchus*, and in this doubt I share so strongly that I have no hesitation in formally separating it. (See p. 606.) Another species also seems to me to require separation on account of its very long tarsi. This is the *M. magnirostris* (GRAY), of the Galapagos archipelago, a species which otherwise resembles the smaller flat-billed species, though differing in having the bill much narrower and less contracted at the tip. These two eliminations, together with that of the flat-billed group typified by *M. tuberculifer* and including *M. lawrencii* and allies, make four well-defined groups

included within the genus *Myiarchus*, as generally understood, the chief structural characters of which may be tabulated as follows:

- a*<sup>1</sup>. Bill nearly cylindrical, its depth at gonydeal angle nearly equal to its width at the same place.....MYIARCHUS.  
*a*<sup>2</sup>. Bill depressed, its depth at gonydeal angle decidedly less than its width at the same place.  
*b*<sup>1</sup>. Nostrils distinctly lateral; width of bill at frontal feathers much less than length of gonys.  
*c*<sup>1</sup>. Tarsus much shorter than length of bill from rictus; lateral outlines of bill contracted at tip.....ONYCHOPTERUS.  
*c*<sup>2</sup>. Tarsus as long as bill from rictus; lateral outlines of bill not contracted at tip.....ERIBATES.  
*b*<sup>2</sup>. Nostrils superior; width of bill at frontal feathers equal to length of gonys. (Tarsus much shorter than length of bill to rictus.).....DELTARHYNCHUS.

The synonymy of these generic or subgeneric groups is as follows:

### 1. *Myiarchus* Cabanis.

*Myiarchus* CAB., in Tschudi, Faun. Per., Aves, 1845, 152. Type, *Muscicapa feror* GM.  
*Kaupornis* BONAP., Ann. Sc. Nat., ser. iv, Zool., i, 1854, 133. Type, *Myiobius stolidus* GOSSE.

*Myionax* CAB. and HEINE, Mus. Hein., II, 1859, 73. Type, *Muscicapa crinita* LINN.  
 "Despotina KAUP, 1851," GRAY, Hand-l. I, 1871, 363. Type, *Muscicapa feror* GM.

This section includes, besides the type (*M. feror*), *M. crinitus* (Linn.), *M. mexicanus* (Kaup), *M. cinerascens* Lawr., *M. yucatanensis* Lawr., *M. tyrannulus* (Müll.), *M. phaeocephalus* Sel., and all the West Indian species except *M. barbirostris* (Sw.), together with, as a matter of course, their various geographical races or subspecies.

### 2. *Onychopterus* Reichenbach.

*Onychopterus* REICH., Av. Syst. Nat., 1850, t. Ixv. Type, *Tyrannus tuberculifer* D'ORB. and LAFR. (= *Myiarchus atriceps* CAB.?).

This includes, besides the type, *M. laurencii* (Gir.) and *M. barbirostris* (Sw.), together with the various geographical races of and species allied to the former species.

### 3. *Eribates* Ridgway.

*Eribates* RIDGW., MS. Type, *Myiobius magnirostris* GRAY.

### 4. *Deltarhynchus* Ridgway.

*Deltarhynchus* RIDGW., MS. Type, *Myiarchus flammulatus* LAWRE.

Species which I have not examined, and therefore can not assign to their proper sections, are the following: *M. cephalotes* Tacz., *M. pelzelii* Berl., *M. phaeonotus* Salv. & Godm., *M. apicalis* Sel. & Salv., *M. tricolor* Pelz., *M. semirufus* Sel., and *M. inquietus* Salv. & Godm.

### *Myiarchus yucatanensis* Lawr.

Although described by Mr. Lawrence in 1871 (Proc. Acad. Nat. Sci., Philad., 1871, p. 235), *Myiarchus yucatanensis* remained little known until 1887, when the present writer gave it definite characters in his

"Manual of North American Birds" (p. 334), based largely on a perfect specimen obtained in northern Yucatan by Mr. G. F. Gaumer; the extremely worn plumage of the type and the other specimen obtained with it by Dr. Schott having precluded a clear perception of the specific characters. The following year Dr. Selater also recognized it as a distinct species and gave it (Cat. B. Brit. Mus., XIV, 1888, p. 260) a clear diagnosis, based on additional specimens collected by Mr. Gaumer. He also admitted its relationship to *M. stolidus* (Gosse), first indicated in the key of my "Manual," stating that it "clearly belongs to the Antillean group of *M. stolidus*, with broad rufous margins to the inner webs of the rectrices."

The next year Messrs Salvin and Godman (*Biologia Centrali-Americana, Aves*, II, pt. 11, March, 1889, p. 93) also recognized it as a species, but assigned it to the group of *M. laurencii*, and qualified their opinion of its validity by the statement that they could "see very little difference between these Yucatan birds [*M. yucatanensis* Lawr.] and the form of *M. laurencii* found in eastern Mexico, from Vera Cruz northwards," though admitting that "compared with *M. laurencii* from more southern localities, including Yucatan itself,\* the amount of red in the tail of *M. yucatanensis* becomes a more conspicuous character, and the difference between the two is more obvious."

More recently, Mr. J. A. Allen seems to be suspicious of its specific distinctness, and says (Bull. Am. Mus. Nat. Hist. IV, No. 1, Art. xvii, Dec. 29, 1892, p. 345) that "the two original specimens \* \* \* are both in very worn plumage, and were these the only specimens known I should not hesitate to refer them to *M. laurencii*." He further says that "while the types bear a strong resemblance in coloration to worn specimens of *M. tyrannulus* [a South American species not referred to in my "Manual"] in which the amount of rufous in the tail is below the normal, this is evidently not the species to which they bear the closest affinity."

These somewhat conflicting views have induced me to reëxamine the subject, although the number of specimens of *M. yucatanensis* accessible to me has not increased since the "Manual" was written, except that the type, not then examined, has been borrowed for the purpose from the American Museum of Natural History. This reëxamination and comparison of specimens fully confirms my reference of the species to the typical section of the genus, as indicated in the "Manual" and indorsed by Dr. Selater in the British Museum catalogue, the form of the bill in *M. yucatanensis* being very different from that of *M. laurencii*.

For comparison with the three specimens of *M. yucatanensis* I have selected all the National Museum specimens of the *M. laurencii* type from Yucatan (*M. l. olivaceus*, nobis, four in number) and five examples

\* These Yucatan birds are *M. laurencii olivaceus*, nobis, those from Vera Cruz northward being true *M. laurencii*.

of true *M. laurencii* representing localities "from Vera Cruz northwards," and including Giraud's type, said to have been obtained in Texas. That the differences between them are really very considerable, the following tabulated statement of their characters will show:

a<sup>1</sup>. Bill approximately cylindrical (*i. e.* as in typical *Myiarchus*).

1. *M. yucatanensis*. Wing, not less than 3.35 (average, 3.38); tail, not less than 3.32 (average, 3.34); tarsus, 0.85; middle toe, 0.48; inner webs of second to fifth rectrices with inner half rufous; top of head distinctly more reddish brown than back.\*

a<sup>2</sup>. Bill distinctly depressed (*i. e.*, as in type-species of the subgenus *Onychopterus*).

2. *M. olivaceus*. Wing, not more than 3.10 (average 2.97); tail, not more than 3.05 (average 2.87); tarsus, not more than 0.76 (average 0.74); middle toe, not more than 0.42 (average 0.39½); inner webs of second to fifth rectrices without any rufous in adult (a narrow edging only in young); top of head same color as back.
3. *M. laurencii*. Wing, 3.22-3.35 (average 3.30); tail, 3.05-3.28 (average 3.15); tarsus, 0.75-0.80 (average 0.78); middle toe, 0.40-0.42 (average 0.41); inner webs of second to fifth rectrices merely edged with rufous; top of head distinctly darker (not more reddish) than back. (Colors throughout much darker than in *M. yucatanensis*, the upper surface of the tail more strongly washed with rusty, and wing-coverts edged with brown or rusty instead of light grayish.

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\* This character is of course obvious or conspicuous only in fresh plumage specimens.