

# Field identification of juvenile *Empidonomus* tyrants

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The long-awaited *Birds of Peru* is now in birders' hands and is proving to be a boon for identification in one of the most speciose countries in the Neotropics. However, as its authors admit, no field guide can realistically seek to be a panacea. This article complements the seminal book by tackling a hitherto unpublished potential identification conundrum involving tricky tyrant flycatchers.

John O'Neill had a vision. And then one of us—Tom Schulenberg—came along and stood in the way of that vision.

John envisioned a book on the birds of Peru that would illustrate *everything*: every imaginable plumage variation, be it geographic, sexual or age-related, that a birder or ornithologist might encounter in the field. John had been studying the birds of Peru for decades, since long before there were any kind of field guides for South America, much less illustrated guides. Moreover, as a well-known bird artist himself, John wanted a book that would not disappoint anyone in the field confronted by an unfamiliar bird. Tom, on the other hand, worried that the plates would become too crowded or confusing, and so periodically argued that a particular plumage “wasn't different enough” to warrant an illustration.

This was a stance that Tom came to regret, long before *Birds of Peru*<sup>12</sup> was published, but by then it was too late to go back. And, truth be told, the Peru book has almost 3,800 figures, illustrating a wide range of postures and plumages. Among these are plumages that were not previously described in the literature (much less depicted), such as the rufous morph of the Subtropical Pygmy Owl *Glaucidium parkeri*, an undescribed ‘un-necklaced’ subspecies of Necklaced Spinetail *Synallaxis stictothorax*, or the alternate plumage of the male Drab Seedeater *Sporophila simplex*.

But there also are instances where our failure to implement in full John's vision may lead to problems in the field. As indicated by recent discussions on the BirdingPeru internet bird discussion group, the juveniles of the tyrant flycatcher genus *Empidonomus* can be confusing. *Empidonomus* comprises two species of medium-

large tyrant flycatchers: Variegated Flycatcher *E. varius* and Crowned Slaty Flycatcher *E. aurantioatrocristatus*. They are characteristic birds of open woodlands, forest edge and forest canopy. *Empidonomus* possess a rather upright posture, with relatively short tarsi and a relatively long tail. Neither species is crested, but the rear crown of Variegated usually appears peaked. Both breed in eastern and southern South America, and the southern populations of both species are migratory.

It may be surprising that these two species pose an identification problem with respect to one another, as the adults are very different. Certainly, this is the impression one gets from reviewing most of the field guides to South American birds (including our own!): there is virtually no direct textual comparison of the two species or of the potential for confusion<sup>4–6,10–12</sup>. All field guide authors to date, including ourselves, overlooked an earlier discussion of this problem, dating from 1926<sup>1–3</sup>; indeed, the first description of the juvenile plumage of Crowned Slaty Flycatcher, and an appreciation of its similarity to Variegated Flycatcher, was as early as 1895<sup>7</sup>.

## Adults

The adult Variegated Flycatcher (Fig. 1e) closely resembles a small-billed, slightly smaller version of a *Myiodynastes* tyrant (for example, Streaked Flycatcher *M. maculatus*, with which it often is confused). Variegated is heavily streaked below; has a bold face pattern (dark crown, broad white supercilium, broad dark streak from the lores through the eye and onto the auriculars, broad white moustachial streak and narrow dark malar

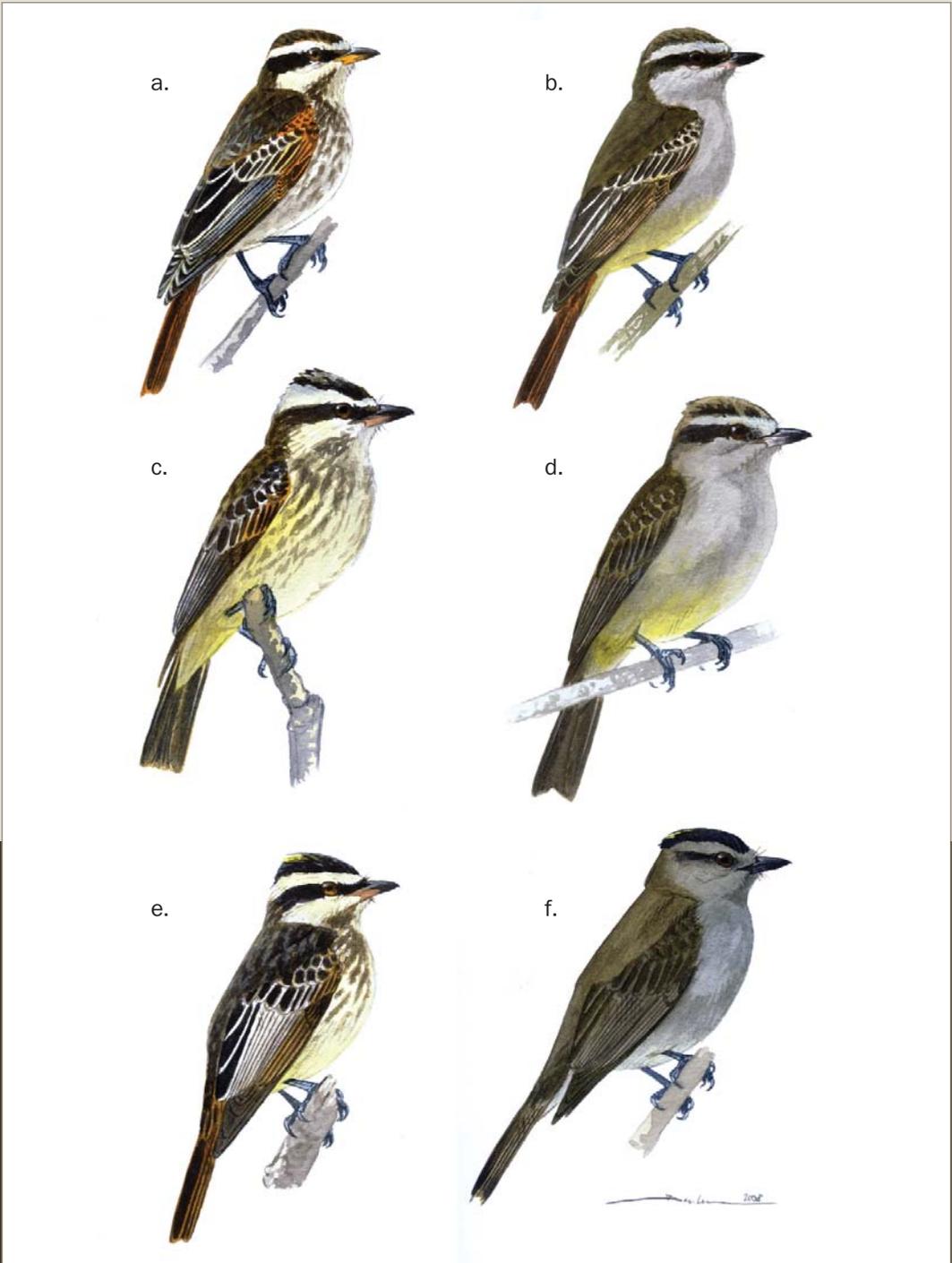


Figure 1. Plumage progression of the two *Empidonomus* tyrant flycatchers (Daniel F. Lane). Compare in particular the streakiness and the presence/absence of a malar between homologous plumages of the two species. (a) Variegated Flycatcher *Empidonomus varius*: juvenile; (b) Crowned Slaty Flycatcher *E. aurantioatrocristatus*: juvenile; (c) Variegated Flycatcher: moulting from worn juvenile to first-basic (first-winter); (d) Crowned Slaty Flycatcher: moulting from worn juvenile to first-basic; (e) Variegated Flycatcher: definitive adult; (f) Crowned Slaty Flycatcher: definitive adult



Crowned Slaty Flycatcher *Empidonomus aurantioatrocristatus*. Left: Dorsal view of an adult. Corrientes province, Argentina, November 2007 (James C. Lowen; [www.pbase.com/james\\_lowen](http://www.pbase.com/james_lowen)). Right: Ventral view of a juvenile showing an unmarked breast, strong supercilium and pale edgings to the wing-coverts. Entre Ríos province, Argentina, January 2007 (Alec Earnshaw; [www.fotosaves.com.ar](http://www.fotosaves.com.ar))



Variegated Flycatcher *Empidonomus varius* (clockwise from left above):

A juvenile (probably representing the resident Venezuelan subspecies *rufinus*) initiating wing moult into first basic plumage: note new, black-centred inner greater and median wing-coverts. The crown is brown, not yet showing any definitive blackish crown feathering. Monagas state, Venezuela, March 2007 (Joseph Tobias; [www.neomorphus.com](http://www.neomorphus.com))

Dorsal view of an adult (nominate *varius*). Rio de Janeiro state, Brazil, November 2006 (Daniel F. Lane)

Wings and tail of a fresh juvenile, showing pale fringes to the wing-coverts and remiges, chestnut scapulars and rufous fringes to the rectrices. Santa Cruz department, Bolivia, February 2007 (Quillen Vidoz/Alex Jahn)

streak); the mottled brownish upperparts sometimes show pale fringes to the feathers, creating a suggestion of weak streaks; the wing-coverts and inner remiges are conspicuously scaled white or rufous (on the outermost wing-coverts and primaries); the rectrices and uppertail-coverts are clearly fringed rufous; and the bill usually shows some pink on the lower mandible.

A freshly moulted adult Crowned Slaty Flycatcher (Fig. 1f) looks quite different; indeed, it is rather more similar, albeit very superficially, to grey tyrant flycatchers such as Slaty Elaenia *Elaenia strepera*, than it is to Variegated Flycatcher. The underparts of Crowned Slaty are pale, smoky grey, and more importantly, are unstreaked. The upperparts, likewise, also are a uniform, unstreaked or unmottled grey or grey-brown, with much less conspicuous markings than Variegated on the wing-coverts and inner remiges; there is no rufous in the tail; the face also has a much more subdued pattern, with much less contrast between the grey supercilium and black crown/dusky auriculars; normally, the bill is all black.

## Juveniles

The picture changes considerably, however, when juvenile *Empidonomus* are considered. Juvenile Variegated Flycatcher (Fig. 1a) is recognisably similar to the adult, displaying a bold face pattern and mottled mantle. Differences include: a uniformly brownish crown lacking a semi-concealed yellow coronal patch; more prominent rufous fringes to the rectrices; more extensive rufous fringes to the lesser coverts; and, sometimes, less prominent streaking on the underparts. The contrasting pale moustachial and dark malar streaks are often even more noticeable in this plumage than the adult. Birds at this age frequently show a bright orange base to the lower mandible. We suspect that few Variegated in this plumage are misidentified as Crowned Slaty. As with the adults, they are more likely to be confused with Streaked Flycatcher or with the smaller Piratic Flycatcher *Legatus leucophaeus*.

The 'problem' is the juvenile of Crowned Slaty Flycatcher (Fig. 1b), which could be inadvertently passed off as a Variegated Flycatcher. In this plumage, the wing-coverts and inner remiges are prominently fringed white; the rectrices may show narrow rufous fringes; and the supercilium is much paler (often almost whitish) and more contrasting than in the adult. In all three features, juvenile Crowned Slaty differs from the adult in

ways that render it similar to all plumages of Variegated. Furthermore, juvenile Crowned Slaty may show a small pinkish base to the lower mandible, similar to that exhibited by Variegated of any age.

The possibilities for confusing these two species are compounded by the fact that the juveniles of *Empidonomus* are rarely mentioned in the literature and illustrated even less often. We do not know of any field guide illustrations of juvenile Variegated Flycatcher. Juvenile Crowned Slaty Flycatcher has been depicted twice in recent field guides. *Birds of northern South America*<sup>9</sup> illustrates it, as we now wish that we had, but even that volume does not show the juvenile of Variegated. Another figure of juvenile Crowned Slaty is shown in *Birds of Chile*<sup>6</sup> although this figure is somewhat misleading in showing a bird with a significant amount of streaking on the mantle and underparts (see next-but-one paragraph).

Fortunately, juvenile Crowned Slaty Flycatcher should not be that difficult to identify, provided that observers are aware of the existence of this plumage, because it retains a number of the adult's distinctive characteristics. Although juvenile Crowned Slaty has a relatively pale supercilium, it lacks either a pale moustachial streak or a dark malar, therefore remaining much less patterned than any Variegated Flycatcher.

Similarly, the comparatively pale, unstreaked breast of juvenile Crowned Slaty Flycatcher differs from all adult Variegated Flycatchers and from the majority of juveniles. The upperparts of juvenile Crowned Slaty have little or no dusky mottling; the pale facial markings are less white than Variegated; and, although there are narrow rufous margins to the rectrices, juvenile Crowned Slaty is much less rufous overall than is Variegated (especially the juvenile), with comparatively little rufous on the rump, remiges or wing-coverts. Whereas Crowned Slaty juveniles possess a yellowish belly than the adult, juvenile Variegated tend to be whiter below than the adult. Of course, most juvenile Crowned Slaty Flycatchers are also washed with grey overall, but this may be difficult to discern under certain lighting conditions and without direct comparison to Variegated.

## Migration and moult

The northern subspecies of Variegated Flycatcher, *rufinus*, is resident from Venezuela east to the Guianas, and south to the south bank of the Amazon and the Brazilian state of Bahia. The migratory subspecies, nominate *varius*, breeds

from eastern Bolivia east across southern Brazil to Goiás and Minas Gerais states, and south to northern Argentina and Paraguay. Much remains to be learned about the timing of migration in Variegated Flycatcher, and the extent of its wintering range. Variegated leaves southern Brazil by the end of March. In Peru, they have been reported as early as mid-February and remain until at least October. We are not aware of records of Variegated from south-east Peru during the austral winter (June–August), so it may be simply a passage migrant through this region. However, Variegated clearly winters in north-east Peru, south at least to the Amazon and the south bank of the río Marañón.

As with Variegated Flycatcher, the northern subspecies of Crowned Slaty Flycatcher, *pallidiventris*, is resident; this population occurs in eastern Brazil south of the Amazon, from western Pará east to northern Goiás and Piauí. The migratory southern subspecies, *aurantioatrocristatus*, breeds from south-east Bolivia across southern Brazil east to southern Goiás, south to central Argentina, Paraguay and Uruguay. Crowned Slaty begins its northerly migration early (January–February), at least in southern Brazil. In Peru they are present from late February until October. Unlike Variegated, Crowned Slaty winters throughout the Peruvian Amazon.

Both species undergo complete moult on the wintering grounds. As such, moulting birds are frequently seen during June–August in Amazonia, for example. Adults of both species can look rather ‘ragged’ at this time (an effect highlighted for some other tyrant flycatchers by Restall<sup>8</sup> in *Neotropical Birding* 2), and the worn plumage can increase the contrast in the face pattern of Crowned Slaty Flycatcher. Similarly ‘ragged’ at this season are juveniles moulting into first-basic (first-winter) plumage (Fig. 1c–d). Such birds can be aged by their faded and worn brownish or greyish

crowns, often offset by recently acquired blackish feathers that seem to emerge first just above the supercilium, thus producing a brown crown bordered by black lateral stripes. Crowned Slaty moulting into first-basic plumage often retains pale fringes to the wing-coverts, a yellowish belly and a bolder and more contrasting face pattern than definitive-plumaged (full) adults. An individual showing these various features may cause the observer to think that it belongs to another genus of tyrant flycatcher, such as *Myiarchus* (see, for example, the discussion at: <http://www.cahlander.com/mystery.htm>). Unfortunately, not enough is known about the plumage development of the two species of *Empidonomus* to be able to say if first-basic individuals can be safely distinguished in the field from definitive adults.

Through the production of *Birds of Peru*, we learnt a lesson that all authors of field guides discover: that there always are things that can be improved in hindsight. As more birders gain more experience in the field in the Neotropics, and more attention is given to plumage variation, we will surely uncover and defuse more potential identification pitfalls, such as the present case. We hope that this article encourages birders to do so—and to become more involved in helping to document the seasonal movements of migrants such as *Empidonomus* flycatchers.

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