

### ORNITHOLOGICAL NOTES

# Notes on the vocalizations of Mouse-colored Tyrannulet (*Phaeomyias murina*)

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In the following we briefly analyze and compare voice of the different races of Mouse-colored Tyrannulet (*Phaeomyias murina*). We also try to quantify the extent of any vocal differences using the criteria proposed by Tobias *et al.* (2010), as a support for taxonomic review. We have made use of sound recordings available on-line from Xeno Canto (XC).

There are few recordings available of dawn song of all taxa, for which it is better to focus on day-time song.

Day-time song of all except Tumbesian races is a usually gravelly nervous series of notes which suddenly increases in amplitude and pitch: "je-je-je-je-je-je-JE-JEE-Jew", with minor variations (last note lower in pitch and amplitude).

Day-time song of Tumbes birds is quite different: a short phrase of about 5 notes, typically a few fairly squeaky and a few rather gravelly (Fig. 1). (Also a variety of calls, including a peculiar fast rising rattle, different from any vocalization of the other races).

Measurements of day-time song:

#### Tumbes birds (n=4)

Amplitude ratio 0.7-1.0 approx.

(second part/first part)

total length 0.485-1.06s

# of notes 4-7

lowest max. freq. 2000-3200Hz highest max. freq. 3800-5000Hz typical note length 0.04-1.0s

note shape irregular, mix of long and short notes

#### Other races (n=10)

Amplitude ratio > 4

(second part/first part)

total length 1.00-1.53s
# of notes 10-14
lowest max. freq. 2300-3600Hz
highest max. freq. 4150-5600Hz
typical note length 0.06-0.085s

note shape fairly rounded and overslurred, sometimes more burry, regular

Tumbesian birds thus differ vocally by a rather stable amplitude over the duration of a song phrase (score 3), a shorter duration of the song phrase (score 1-2), fewer notes in the song phrase (score 3) and more irregular note shapes (score 1). Several calls also very different. When applying Tobias criteria, this would lead to a total vocal score of 6.



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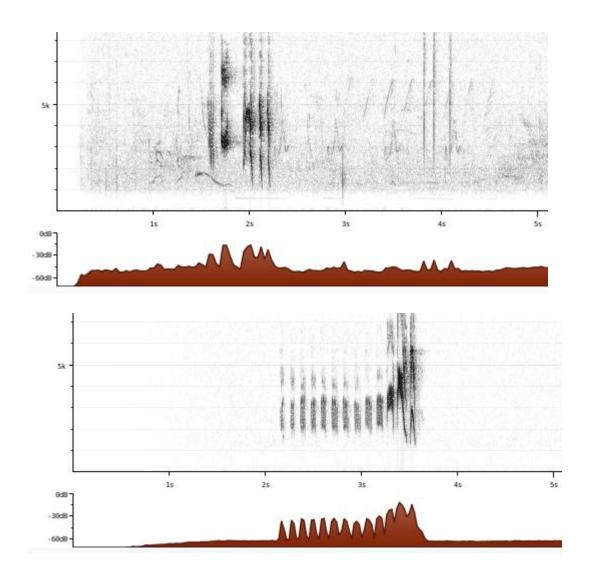


Figure 1: sonogram and amplitude diagram of typical day-time song of Tumbesian races (top) and other races (bottom)

This note was finalized on 25th June 2015, using sound recordings available on-line at that moment. We would like to thank in particular the many sound recordists who placed their recordings for this species on XC.

#### References

Tobias, J.A., Seddon, N., Spottiswoode, C.N., Pilgrim, J.D., Fishpool, L.D.C. & Collar, N.J. (2010). Quantitative criteria for species delimitation. *Ibis* 152(4): 724–746.

#### **Recommended citation**

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