

Notes on the vocalizations of Undulated Antshrike (*Frederickena unduligera*)

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In the following we briefly analyze and compare voice of the different races of Undulated Antshrike (*Frederickena unduligera*). 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).

Voice has been analyzed in detail by Isler *et al.* (2009). Main differences in loudsong between *fulva* and other races are said to be note shape, pace and rising frequency towards end, supported by data. Average value and standard deviation for the latter two are given, thus effect size can be calculated:

pace

fulva (av. 2.89 sd 0.3 notes/s, $n = 11$) vs other races (av. 4.27 sd 0.46 notes/s, $n = 16$)
-> effect size 3.55 -> score 2

rising end (expressed as a frequency ratio)

fulva (av. 0.99 sd 0.02, $n = 11$) vs other races (av. 1.09 sd 0.03, $n = 16$)
-> effect size 3.9 -> score 2

This results in a total score of 4.

Note shape of *fulva* is described as upslurred whereas notes of the other populations as rounded into an inverted U. At least in some cases the difference is less striking than the sonograms in the paper suggest. *fulva* can also have overslurred notes from the 3rd or 4th note onwards, see e.g. XC77039, XC69889 and XC56726 being somewhat intermediate. While note shapes here are less nicely rounded inverse 'U' than examples of other races, difference in note shape in these particular cases becomes really minor (Fig.1). This could be given therefore at most a score 1.

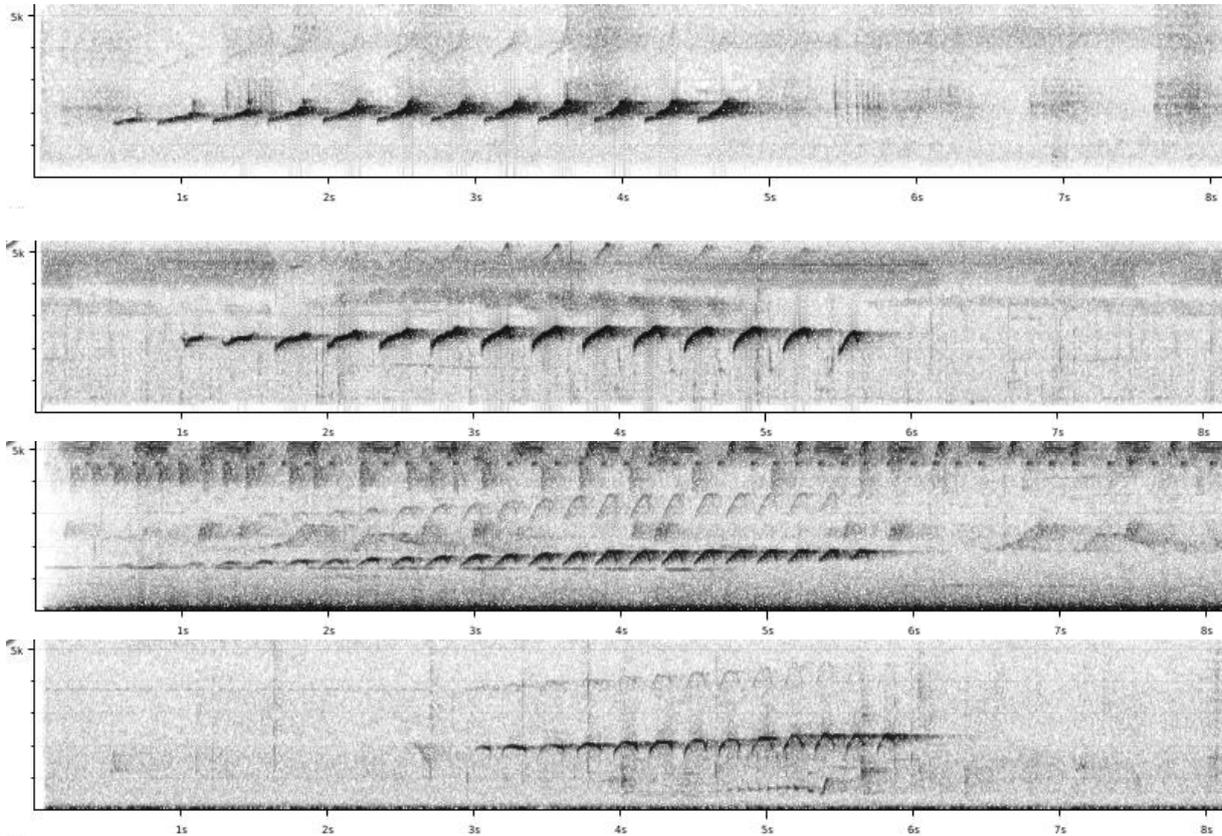


Figure 1: Top to bottom: typical example of upslurred notes in *fulva*, less upslurred in *fulva* and typical example of other races resp. *diversa* and *unduligera*.

All in all, we can conclude that the vocal differences of *fulva* vs other races in loudsong are a slower pace (2) and nearly flat pitch in the second half of the song (2). Notes are generally upslurred (1).

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References

Isler, M. L., Isler, P. R., Whitney, B. M., Zimmer, K. J., and Whittaker, A. 2009. Species limits in antbirds (Aves: Passeriformes: Thamnophilidae): an evaluation of *Frederickena unduligera* (Undulated Antshrike) based on vocalizations. *Zootaxa* 2305: 61-68.

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.

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