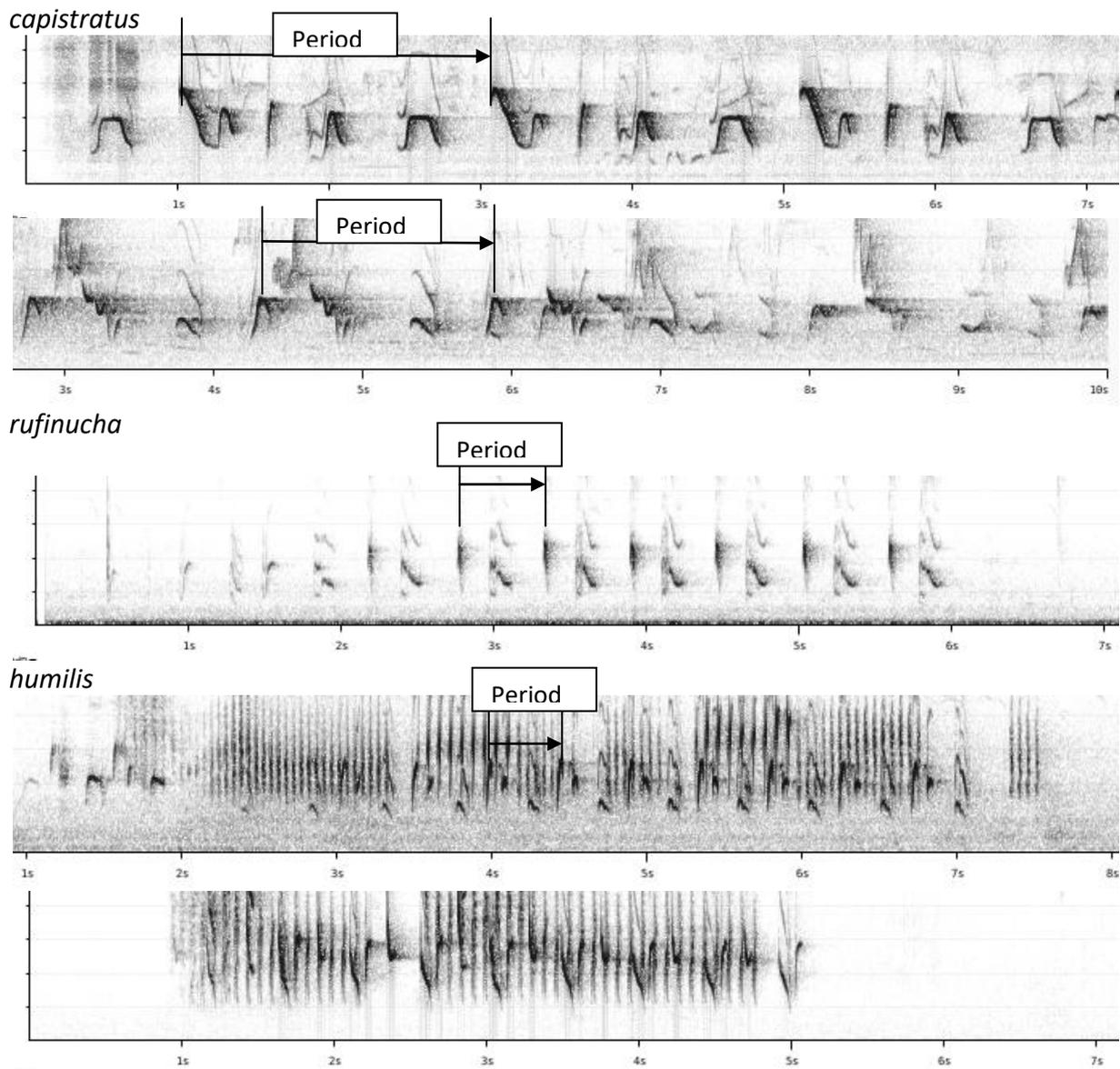


## Notes on the vocalizations of Rufous-naped Wren (*Campylorhynchus rufinucha*)

Peter Boesman

In the following we briefly analyze and compare voice of the different races of Rufous-naped Wren (*Campylorhynchus rufinucha*). 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 of the three groups has been studied extensively in Sosa-López *et al.* (2013), and examination of the available on-line recordings confirms their findings:



*capistratus* duets with both birds uttering low-pitched melodious whistles of comparable shape, in perfect synchrony.

*rufinucha* duets with both birds uttering quite different notes but in perfect synchrony.

*humilis* duets with one bird emitting well-spaced melodious notes and the other bird chattering at a very different pace, asynchronous.

To apply Tobias criteria, we need to identify a number of quantifiable differences:

- the pace (period) with which the same note is repeated is much slower in *capistratus* (c. 1.5-2s interval) vs. less than 1s in other 2 groups.

- the total phrase of notes which is repeated consists of 3-4 notes in *capistratus*, 2 notes in *rufinucha* and a much higher number in *humilis* if the chattering of the 2nd bird is included.

Without digging deeper into the topic, it is clear that the three groups differ vocally in a number of ways.

*capistratus* differs from *rufinucha* by duet phrases including more notes (2) which are all of a similar type (while both sexes of *rufinucha* utter very different notes, score 1-2) and which have a longer period duration (score 2-3).

*capistratus* differs from *humilis* by duet phrases including less notes (2) which are all of a similar type (while both sexes of *humilis* utter very different notes, score 1-2), which are given in synchronous duet (2) and which have a longer period duration (score 2-3).

*rufinucha* differs from *humilis* by a synchronous duet (2) with only two notes per period (vs. many more in *humilis*, score 3).

When applying Tobias criteria, this would lead to total vocal score of at least 4 for each pairwise comparison.

This note was finalized on 15th April 2016, using sound recordings available on-line at that moment. We would like to thank in particular the sound recordists who placed their recordings for this species on XC: Nick Athanas, Alfonso Auerbach, Peter Boesman, David Bradley, Robin Carter, Paul Driver, Francisco Dubon, Manuel Grosselet, Jon King, Doug Knapp, Mike Nelson, Andrew Spencer and John van Dort.

## References

Sosa-López, J.R., Mennill, D.J. & Navarro-Sigüenza, A.G. (2013). Geographic variation and the evolution of song in Mesoamerican rufous-naped wrens *Campylorhynchus rufinucha*. *J. Avian Biol.* 43(1): 1–12.

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**

Boesman, P. (2016). Notes on the vocalizations of Rufous-naped Wren (*Campylorhynchus rufinucha*). *HBW Alive Ornithological Note* **289**. In: *Handbook of the Birds of the World Alive*. Lynx Edicions, Barcelona. (retrieved from <http://www.hbw.com/node/1251731> on 12 October 2016).