

## Notes on the vocalizations of Olive-crowned Crescentchest (*Melanopareia maximiliani*)

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In the following we briefly analyze and compare voice of the different races of Olive-crowned Crescentchest (*Melanopareia maximiliani*). 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) and Macaulay Library (ML).

HBW indicates a clear difference in song pace between races *maximiliani/argentina* and *pallida*, the latter being much faster (Krabbe *et al.* 2003). It would seem that this is in fact only partially correct.

There are indeed two distinct groups with a differently paced song (Fig. 1).

The slow paced song is heard from *maximiliani, argentina* and most birds from the race *pallida*. More specifically, all birds from Paraguay (ML195428, ML57882), N Argentina (XC54064, XC54065 from Formosa and ML83851 from Chaco) south to E Cordoba (own recordings from Miramar XC272983/4).

The fast song is only heard from birds N and W of Cordoba (the salinas and foothills of the endemic center W of Cordoba).

### Slow song (n=9)

mid freq.	2150-2500Hz
freq.range	1800-3500Hz
note length	0.038-0.05s
pace	0.142-0.184 (5.4-7 notes/s)
note shape	like small letter 'h'

### Fast song (n=8)

mid freq.	2150-2500Hz
freq.range	1900-3500Hz
note length	0.021-0.037s
pace	0.064-0.100 (10-15.6 notes/s)
note shape:	like small letter 'h'

There is a clear difference in note length (score 1-2) and pace (score 3). Furthermore, the *fast song* usually gradually rises in frequency at start, and often ends with a short lower-pitched note, while the *slow song* typically has notes at about the same frequency (but occasionally also rises at first).

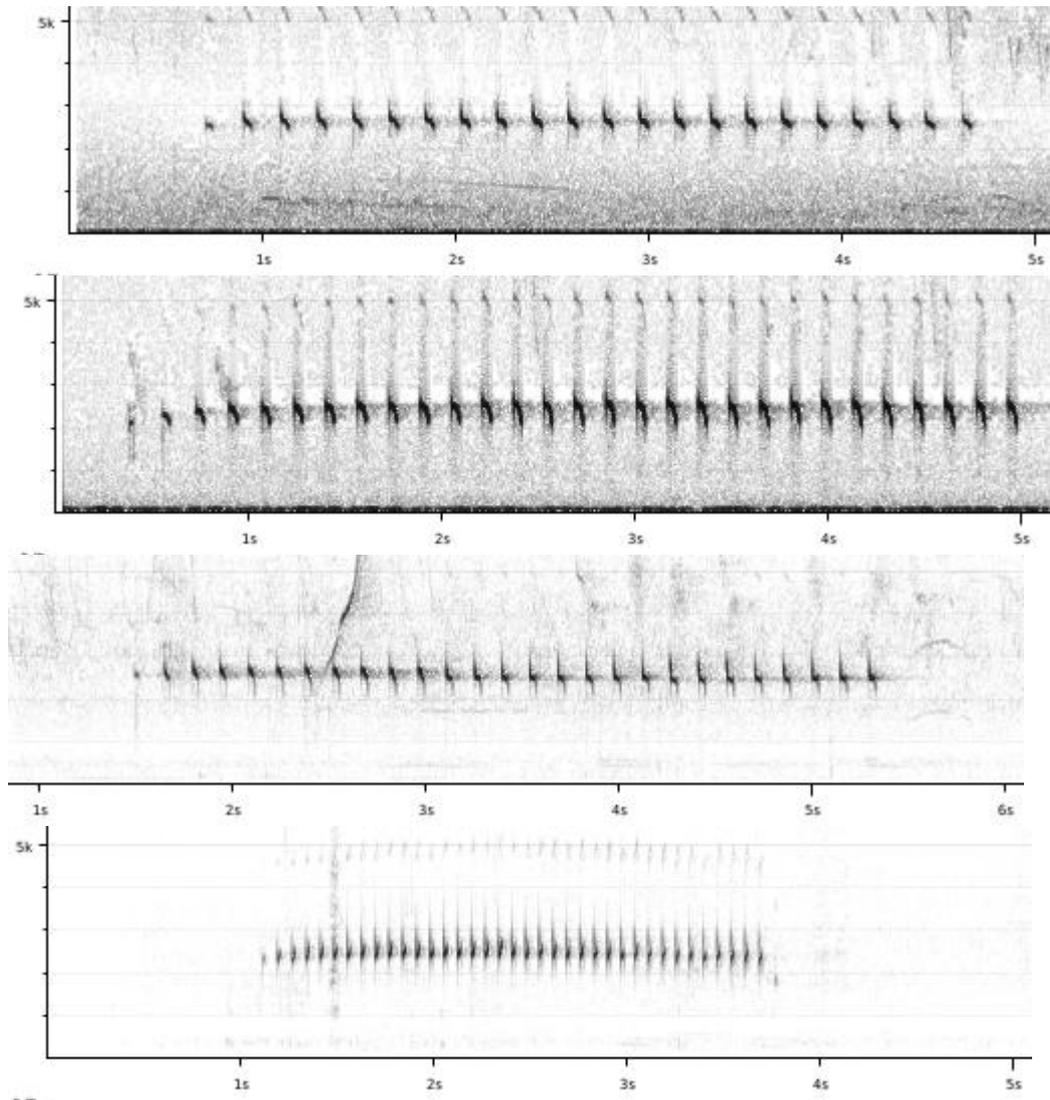


Figure 1: From top to bottom: typical song of races *maximiliani*, *argentina*, *pallida* (Miramar area), *pallida* (Cordoba area)

If note length and pace are considered independent variables, then the total score for vocal difference would be about 4.

The vocal difference however doesn't follow the present taxonomic division. This suggests that there is actually an undescribed taxon in the south parapatric to *pallida* (Fig. 2). This would not be really surprising given that the Cordoba region is known as an endemic center, but unlike many other endemic taxa, these birds actually occur at lower elevation, which is really surprising.

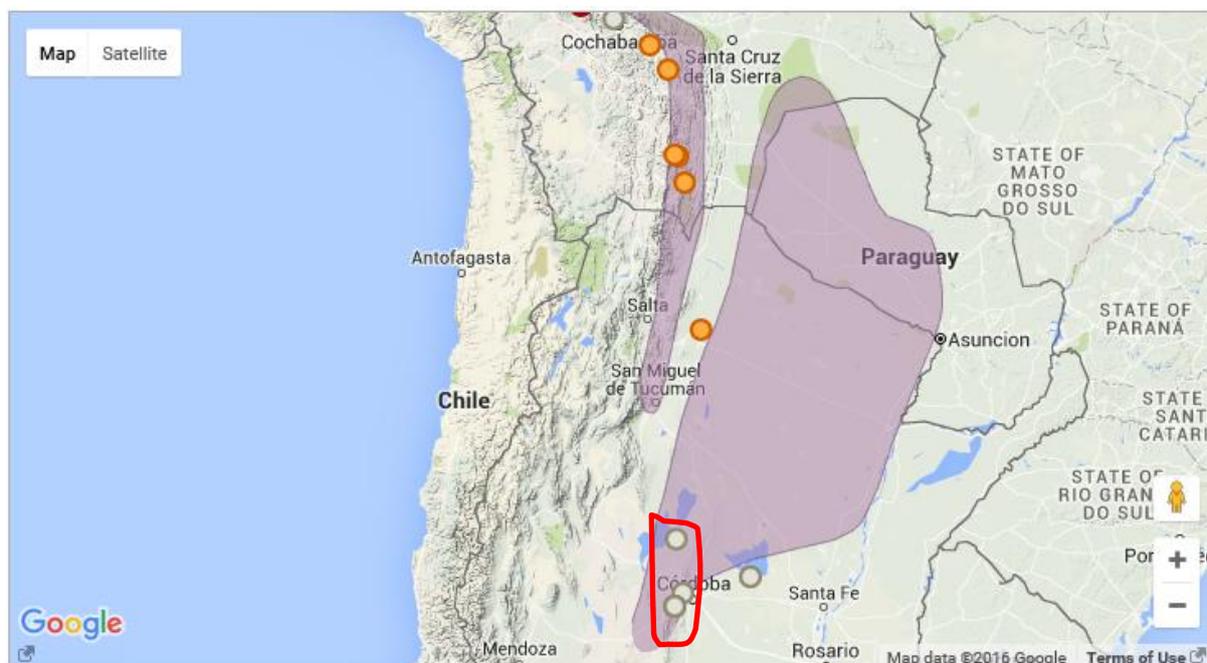


Figure 2: The encircled region shows where 'fast song' has been recorded

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## References

Krabbe, N.K. & Schulenberg, T.S. (2003). Olive-crowned Crescentchest (*Melanopareia maximiliani*). In: del Hoyo, J., Elliott, A., Christie, D.A. (eds.). Handbook of the Birds of the World Vol. 8. Lynx Edicions, Barcelona.

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