

## Notes on the vocalizations of Varied Sittella (*Daphoenositta chrysoptera*)

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In the following we briefly analyze and compare voice of the different races of Varied Sittella (*Daphoenositta chrysoptera*). 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).

Most common vocalization seems to be a constant chipping, a single note repeated for a long period with somewhat irregular short intervals. These notes can be found in most recordings:

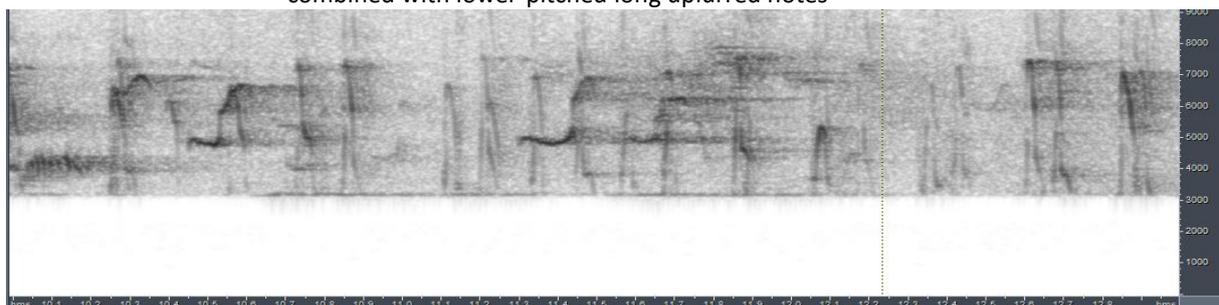
### 'Black-capped': *pileata* (n=4)

max. freq.	6000 - 8300Hz
min. freq.	1900 - 3500Hz
note length	0.05 - 0.11s
pace	0.12 - 0.35s
freq. range	3100 - 5600Hz
shape	<u>consistently dagger-shaped</u>



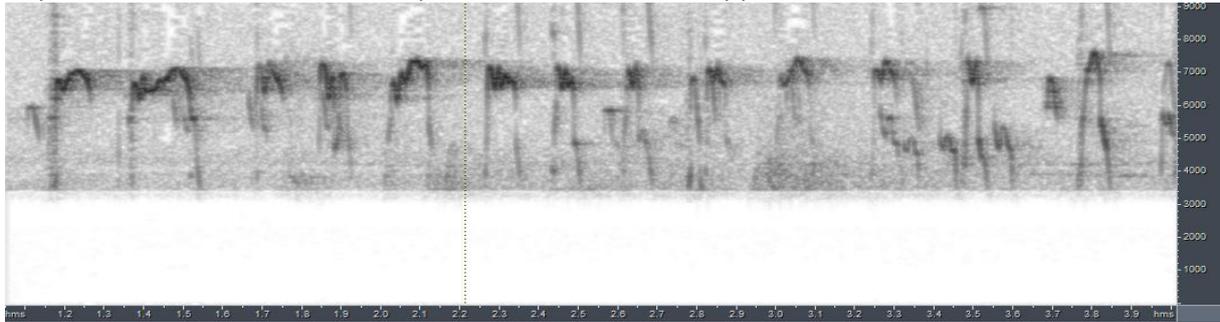
### 'Orange-winged': *chrysoptera* (n=4)

max. freq.	7400 - 7500Hz
min. freq.	2500 - 3000Hz
note length	0.02 - 0.15
pace	0.07 - 0.25
freq. range	4500 - 5000Hz
shape	occasionally some short <u>symmetrical overslurred notes</u> , but invariably combined with lower-pitched long <u>uplurred notes</u>



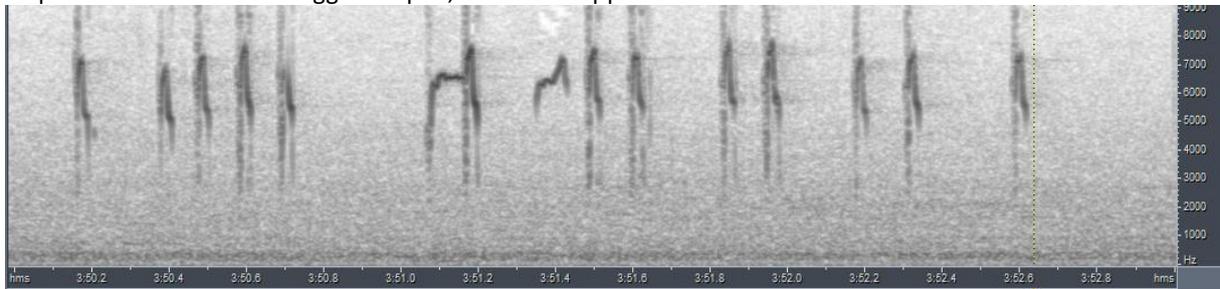
'White-headed': *leucocephala* (n=1)

max. freq. 7700Hz  
 min. freq. 3000hz  
 note length 0.06 - 0.19s  
 pace 0.18 - 0.25s  
 freq. range 4700Hz  
 shape Here the chip notes seem to have a burry plateau



'Striated': *striata* (n=1)

max. freq. 7900Hz  
 min. freq. 2500Hz  
 note length 0.03 - 0.045s  
 pace 0.12 - 0.25s  
 freq. range 5400Hz  
 shape dagger-shaped, like black-capped



'Papua': *papuensis* (n=4)

max. freq. 8150 - 9200Hz  
 min. freq. 3400 - 3700hz  
 note length 0.07 - 0.10s  
 pace 0.18 - 0.44s  
 freq. range 5000 - 5700Hz  
 shape dagger-shaped, but higher freq. than Black-capped/Striated



Differences in these homologous call notes are clearly subtle, and are mainly apparent in note shape rather than in basic parameters.

A larger sample size would be needed to confirm if these differences are consistent, but **tentatively** we could say:

- race *chrysoptera* differs from all other races by the combination of short overslurred chip notes and upslurred whistles (score 2)
- race *leucocephala*: differs from all other races by chip notes which have a burry appearance on sonogram (score 1-2)
- race *papuensis*: differs from all other races in the slightly higher frequencies (score 1-2)
- races *pileata* and *striata*: no obvious vocal differences.

This note was finalized on 8th October 2015, using sound recordings available on-line at that moment. We would like to thank in particular the sound recordists: Patrik Åberg, Benjamin Freeman, Emma Greig, Frank Lambert, Fred Loetscher, Linda Macaulay, Mark Robbins, Nick Talbot and Fred Van Gessel.

### 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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