

## Notes on the vocalizations of Tawny-crowned Greenlet (*Hylophilus ochraceiceps*)

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In the following we briefly analyze and compare voice of the different races of Tawny-crowned Greenlet (*Hylophilus ochraceiceps*). 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).

We have compared the following 3 groups:

North West (*H. o. ochraceiceps*, *H. o. pallidipectus*, *H. o. pacificus*, *H. o. nelsoni*, *H. o. bulunensis*)

Song is a repeated drawn-out whistle, rather flat in pitch or slightly ascending.

(n=6)

		Average	SD
min. freq.	2900 - 3500Hz	3275Hz	193Hz
max. freq.	3250 - 3850Hz	3658Hz	198Hz
total length	0.55 - 0.73s	0.64s	0.05s
freq. range	300 - 500Hz	383Hz	69Hz
# notes	1	1	0

Amazon (*H. o. ferrugineifrons*, *H. o. viridior*, *H. o. lutescens*, *H. o. rubrifrons*)

Song is a repeated drawn-out whistle, rather flat in pitch, slightly ascending or descending.

(n=9)

		Average	SD
min. freq.	2550 - 3200Hz	2707Hz	191Hz
max. freq.	3000 - 4100Hz	3202Hz	346Hz
total length	0.66 - 0.98s	0.76s	0.10s
freq. range	220 - 900Hz	495Hz	174Hz
# notes	1	1	0

Guianas (*H. o. luteifrons*)

Song is a repeated phrase of two slightly descending whistles, the second one lower-pitched and longer than the first one

(n= 8)

		Average	SD
min. freq.	2750 - 3040Hz	2942Hz	87Hz
max. freq.	3600 - 4700Hz	4002Hz	343Hz
total length	1.10 - 1.56s	1.28s	0.16s
freq. range	560 - 1800Hz	1060Hz	350Hz
# notes	2	2	0

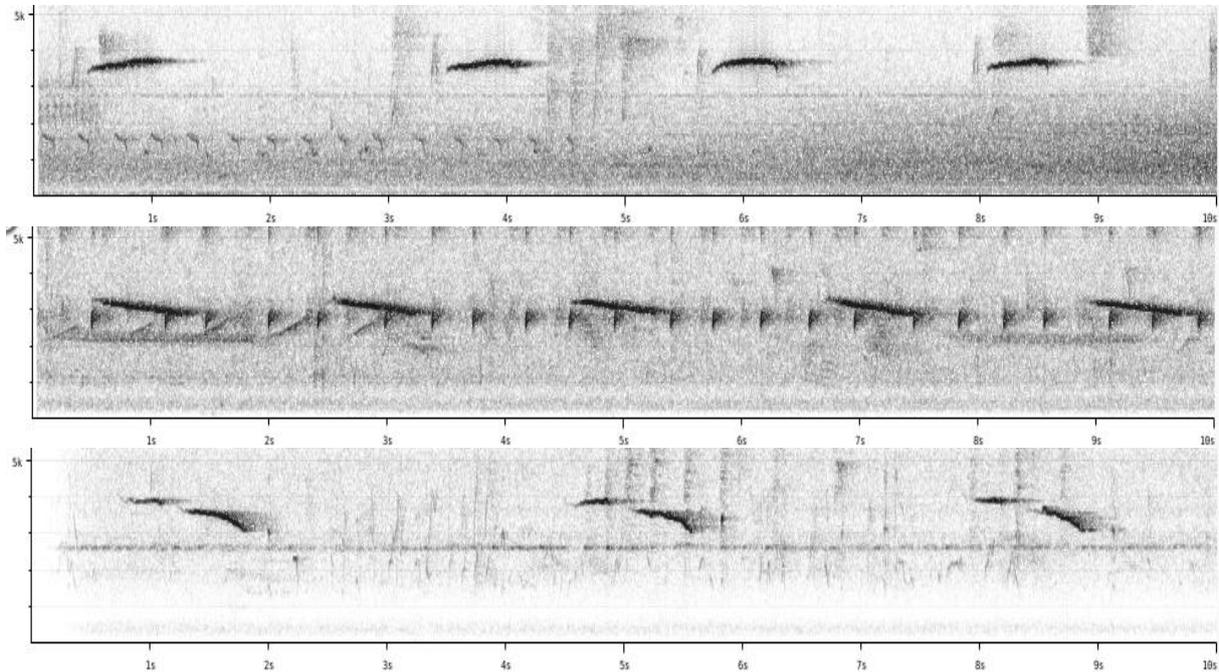


Figure 1: top to bottom: typical song of North West group, Amazon group and Guianas group

Surprisingly, the different song of *luteifrons* has seemingly nowhere been picked up in literature: its song consists of two notes with decreasing pitch (score 4), resulting in an overall longer song phrase (score 2-3) and larger frequency range (score 1-2). When applying Tobias criteria, this would lead to a total vocal score of about 5 vs. all other races.

Birds of North West and Amazon differ slightly, NW birds having on average a higher-pitched voice (score 1-2) and slightly shorter whistles (score 1). Total score 2-3.

The exact geographical boundaries between *ferrugineifrons* and *luteifrons* will need more study, to find out whether the two taxa co-exist or not. Interestingly, based on voice birds of E Venezuela are *luteifrons* (Guianan group) while birds of SE Venezuela are *ferrugineifrons* (Amazonian group), a pattern also seen in some other species. North of Manaus, most birds are *luteifrons*, but one recording is not (if correctly identified, it is a background voice on XC286603, and might equally be song of Collared Gnatwren *Microbates collaris*).

A single recording of presumed race *lutescens* (XC120183) apparently consists of a 2-note song, but else lacks resemblance with *luteifrons*. *rubrifrons* at the other hand sings 'normal' song. To be further investigated.

All in all, we can conclude that the Guianan group clearly stands apart vocally.

This note was finalized on 22nd October 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 and ML.

### 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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