

Notes on the vocalizations of Yellow-rumped Warbler (*Dendroica coronata*)

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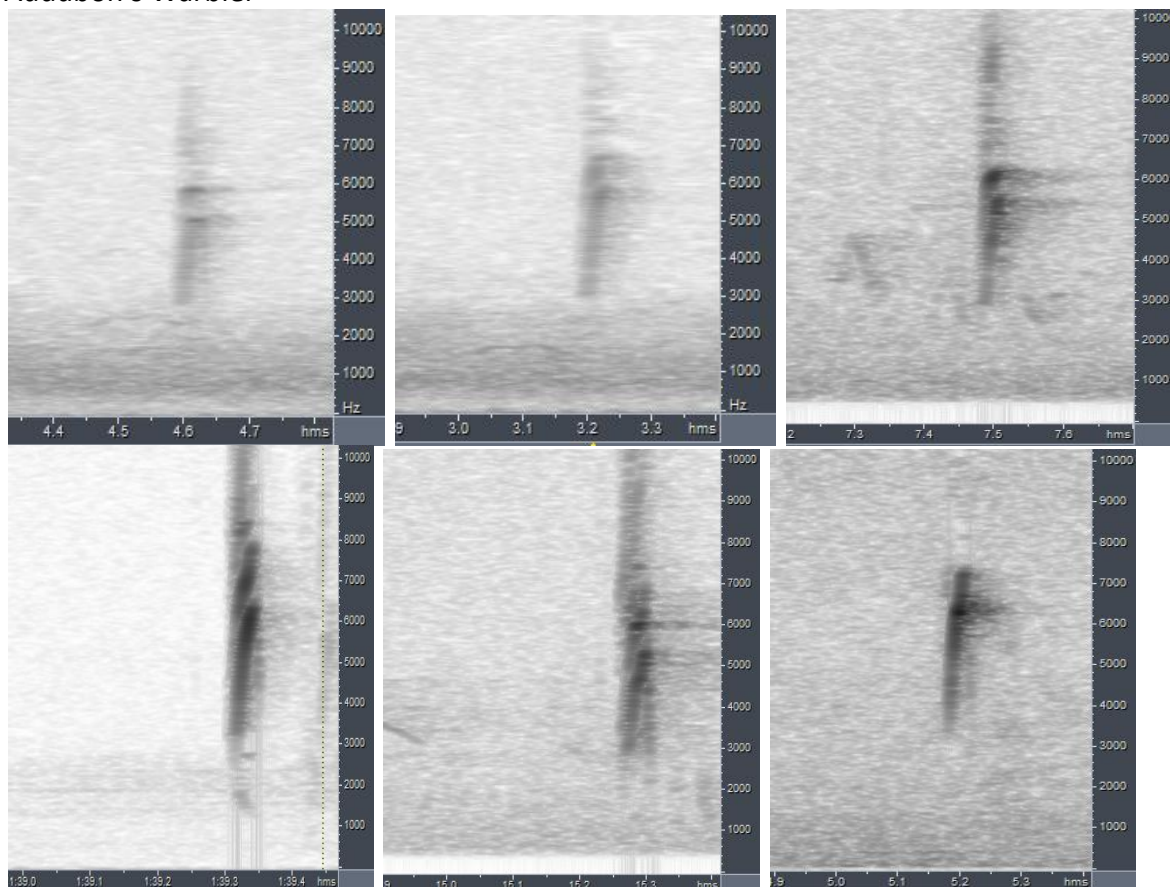
In the following we briefly analyze and compare voice of the different races of Yellow-rumped Warbler (*Dendroica coronata*). We also try to quantify the extent of any vocal differences using the criteria proposed by Tobias *et al.* (2010), as a support for taxonomic review. We have made use of sound recordings available on-line from Xeno Canto (XC).

Two groups are generally recognized: Myrtle Warbler (races *coronata* and *hooveri*) and Audubon's Warbler (races *auduboni*, *nigrifrons* and *goldmani*). We will compare these two groups (the lack of definite sound recordings of races *nigrifrons* and *goldmani* does not allow to zoom in on possible further differences within the latter group).

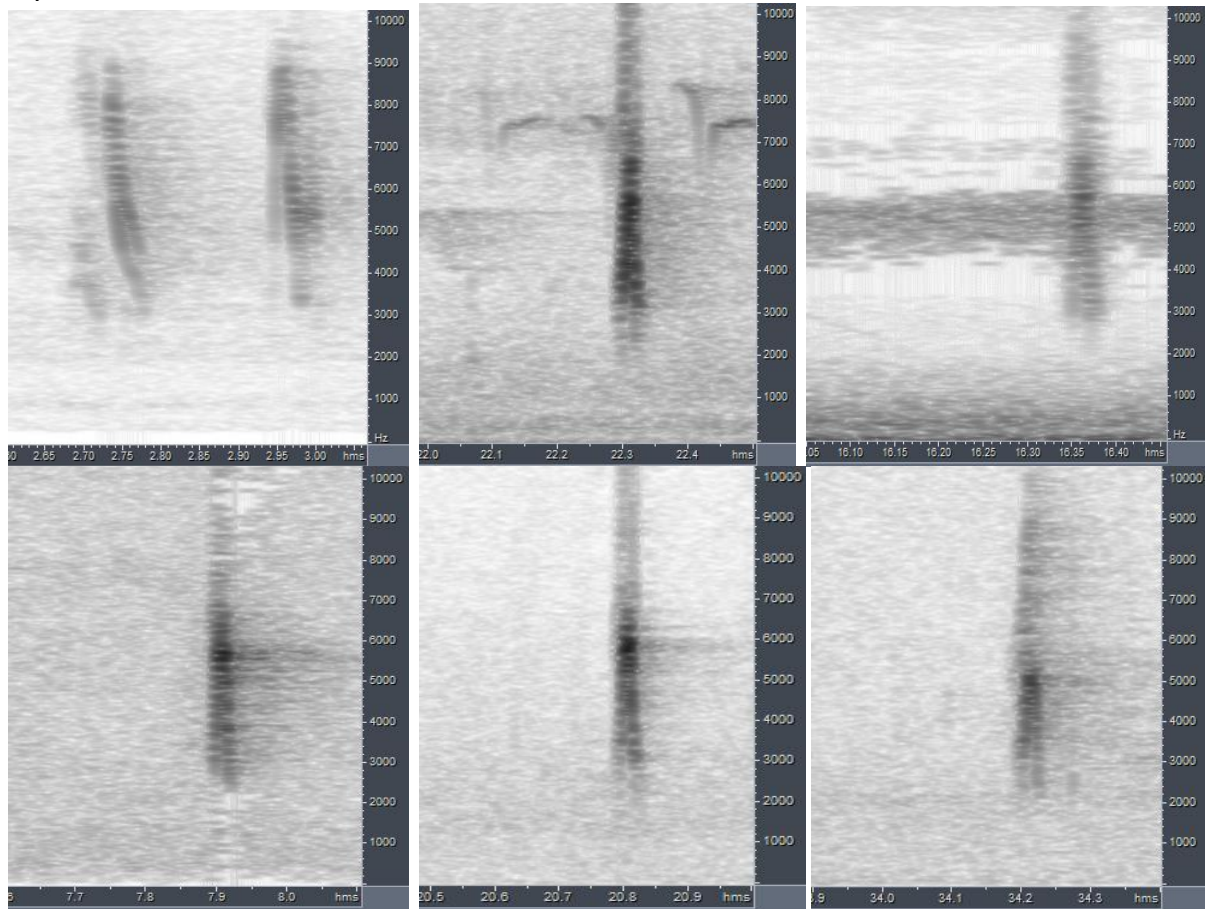
Call

The main call note of Myrtle Warbler and Audubon's Warbler has been described as being different, with Audubon's sounding more rising (Sibley 2000). Differences are quite clear on a sonogram. Some examples:

Audubon's Warbler



Myrtle Warbler

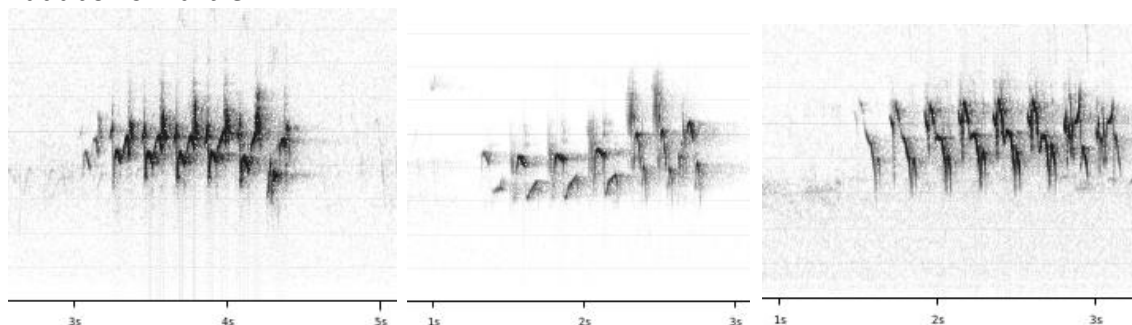


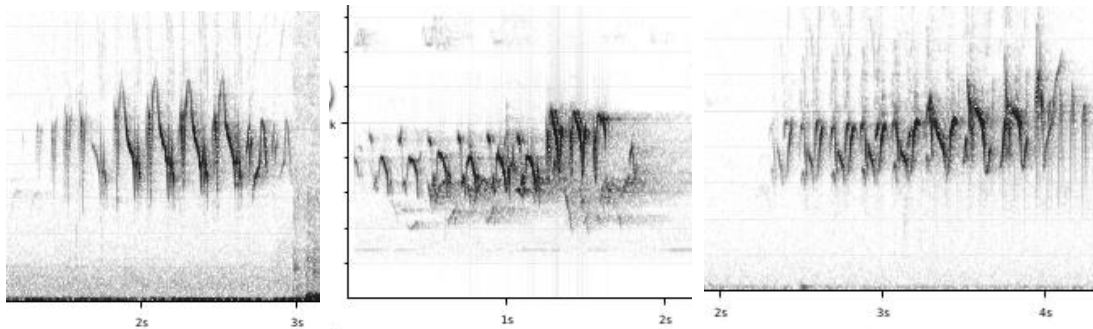
Audubon's Warbler has a note shape which is clearly rising, while Myrtle Warbler has a call which is clearly rising/falling (a sharp downturned V-shape). This difference is consistent over the entire range of both groups. Scoring of this vocal difference could be done e.g. on 'end frequency' or 'difference start frequency minus end freq.', which is obviously much higher in Audubon's Warbler, leading to a score of about 3-4.

Song

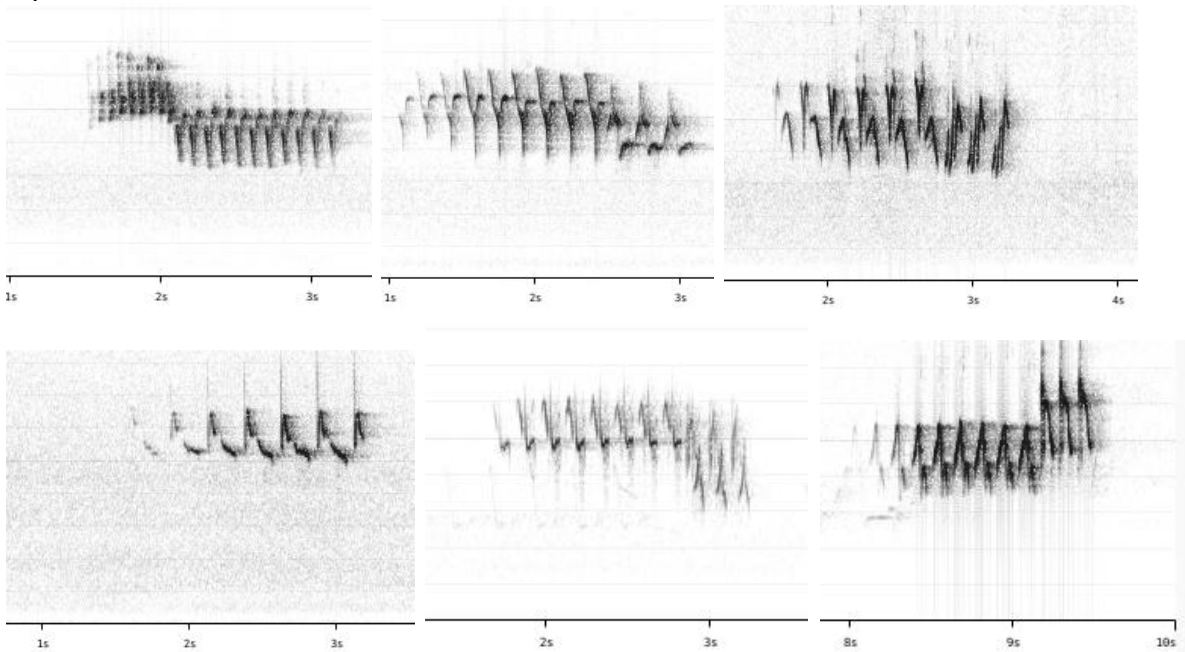
Given the variability, differences in song are less obvious. Some examples:

Audubon's Warbler





Myrtle Warbler



Myrtle Warbler has a song which is on average slightly higher-pitched than Audubon's. It often contains notes which are almost entirely above 5kHz, which is seldom or never the case in Audubon's.

Audubon's Warbler typically has 7-9 'notes/subphrases' in song, Myrtle Warbler has often 9-12 'notes/subphrases' (occasionally less or more).

Other basic sound parameters are very similar, and there are at most slight differences of average values.

Song differences could thus be scored based on Audubon's lower number of notes (1) and lower frequency (1).

We can conclude that while there are minor differences in the song of both groups, it is mainly the call note which allows reliable identification with a high level of confidence.

This note was finalized on 27th June 2016, 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.

References

Sibley, D. (2000). The Sibley Guide to Birds. National Audubon Society. Knopf, New York.

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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