Habitats, population structure and individual song variability in the Caucasian Chiffchaff (*Phylloscopus lorenzii*) at the Northern Caucasus, Russia

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Summary

Altitudinal distribution, population density, habitat preferences and individual song variability of *Phylloscopus lorenzii* was studied in the Caucasus Nature Reserve, the Northern Caucasus, Krasnodarsky kray, in June 2007. *Phylloscopus lorenzii* inhabit only the upper forest and subalpine belts, but do not breed below 2000 m a. s. l. neither in a broad-leaved forest, nor in a mixed coniferous-broadleaved one. The highest density was found at altitudes of 2000–2490 m a. s. l. at the border of the subalpine and alpine belts in low birch and maple forests. Individual song repertoires of 15 males in one of the bird settlements consisted of 5–17 notes with 27 different notes in total recognized in the settlement. The degree of similarity between individual song repertoires of these males estimated by a pairwise comparison of same notes with help of the Jaccard-Nordhagen index varied from 0 to 42.9% (mean 17%). There was no a significant correlation between the repertoire similarity and distance between male territories (Spearman, R = –0.03, n = 55). It spite of existence of sympatric settlements of *Ph. lorenzii* and *Ph. caucasicus* in this and adjacent areas of the Northern Caucasus (Kudashev, 1916; Marova, 2002), presence of *Ph. caucasicus* was not revealed in the study area in 2007. However, presence of only few notes with ascending frequency modulation in songs of *Ph. lorenzii* may indicate sympatry of this species and/or hybridization with *Ph. caucasicus* in the past.