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Abstracts

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RESPONSES OF ADULT WHITE-CROWNED SPARROWS TO PLAYBACK OF SONG PHRASES: IMPLICATIONS FOR THE ONTOGENY OF SONG RECOGNITION

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Abstract. We examined the contribution of individual song phrases to territorial behavior in Nuttall's White-crowned Sparrows (*Zonotrichia leucophrys nuttalli*) in the Bodega, California, dialect area. We presented territorial adult males with playbacks of five song types: local conspecific song, three single phrase types of local conspecific song, and Song Sparrow (*Melospiza melodia*) song. Local conspecific song evoked the strongest response, measured in latency to flight, number of flights, average and closest distance from playback speaker, and vocal response. Of individual song phrases, the trill evoked the strongest response, and the whistle evoked the weakest. Combining these results with those of previous studies on young birds, we describe a model of developmental change from responsiveness to all phrase types in dependent fledglings, through reliance on a species-universal phrase as a cue for song learning, to the use of a more variable, dialect-distinct phrase as a territorial signal by adults.

Key words: recognition, song ontogeny, song phrases, White-crowned Sparrow, *Zonotrichia leucophrys*.