

CALL TIMING INTERACTIONS, AGGRESSIVE BEHAVIOR, AND THE
ROLE OF ACOUSTIC CUES IN CHORUS FORMATION IN TREEFROGS

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Abstract

I studied calling patterns and aggressive behavior of the Bird voiced treefrog, *Hyla avivoca*, to assess how dynamic call characters influences males and the factors influencing the onset of choruses and settling patterns of males in a chorus. Choruses are dynamic, socially complex communication networks that function as focal points for sexual selection. Frogs calling in groups produced longer calls, overlapped calls, and engaged in aggressive calling and fights. During call overlap, males increased duration of the silent interval between pulses so that these interdigitated. Males resort to aggression during the early hours of chorus formation, before females arrival, and engage in fights without showing signs they evaluate the opponent's ability. Females preferred long, non-overlapped calls to overlapped calls and overlapped calls with pulse interdigitatio. Females do not respond to aggressive calls alone, but approached combinations of advertisement and aggressive calls. I also studied the role of acoustic signals on chorus formation and location and found that males may benefit from settling next to attractive males and that calls influences the behavior of males by attracting individuals to the established chorusing area, and to new areas within the breeding area in some species.