

Propagation of natural toad calls in a Mediterranean terrestrial environment

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Propagation patterns of animal acoustic signals provide insights into the evolution of signal design to convey signalers information to potential recipients. However, propagation properties of vertebrate calls have been rarely studied using natural calls from individuals; instead playback calls broadcast through loudspeakers have been used extensively, a procedure that may involve acoustical and physical features differing from natural sounds. Measurements of the transmission characteristics of natural advertisement calls, which are simple tonal sounds, of the Iberian midwife toad, *Alytes cisternasii*, were carried out, and the results were compared with previously published results broadcasting recorded calls of the same species. Measurements of sound pressure level (SPL) of calls from individual male *A. cisternasii* revealed that the call amplitude decreases at distances of 1-8 m from the source at rates averaging 1-5 dB above spherical transmission loss in an omni-directional pattern.