

Individual and sex distinctiveness in bark calls of domestic chinchillas elicited in a distress context

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Resumen

Animals obtain information about their social environment by means of communication signals, which provide relevant subtle cues for individual recognition. An important requisite for this process is the existence of larger between-than within-emitter signal variation. Acoustic signals are complex traits susceptible of variation in their spectral and temporal components, implying that signal distinctiveness can result from differences in single or various acoustic components. In this study, domestic chinchillas were induced to vocalize in a distress context to describe the acoustic characteristics of the bark calls, and to determine features that denote the potential value of this vocalization for individual and/or sexual recognition. The results demonstrate that the variation in spectral and temporal components of the bark calls of chinchillas elicited under a distress context is larger between than within individuals, suggesting the potential of these signals for distinctiveness between individual signalers, although the potential of this call type for sex distinctiveness is quite limited. These results combined with previous studies on auditory capabilities of chinchillas contribute to position this rodent as a valuable model species for studying auditory-vocal interactions. (C) 2015 Acoustical Society of America.

Palabras clave

KeyWords Plus: [YELLOW-BELLIED MARMOTS](#); [ALARM CALLS](#); [FREQUENCY DISCRIMINATION](#); [ACOUSTIC FEATURES](#); [SPEECH-PERCEPTION](#); [CONTACT CALLS](#); [BODY-SIZE](#); [COMMUNICATION](#); [RECOGNITION](#); [NOISE](#)

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