

# Long-Distance Vocalizations of Golden Jackals (*Canis aureus*, L. 1758, Mammalia: Carnivora, Canidae) in Bulgaria

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**Abstract:** During a short term survey in Northern Bulgaria we could distinguish and acoustically analyse three types of long distance vocalizations of golden jackals: two long calls, distinguished by the number of frequency maxima, and one short call. All calls were multi-harmonic, with most energy in the first harmonic. The frequency of the first harmonic ranged between 600 and 900 Hz. This preliminary study presents the first quantitative field data on acoustic communication signals of golden jackals in Europe.

**Key words:** Vocal communication, howling, acoustic structure, canids