

Rutting vocal displays in a game species, Mongolian gazelle

Procapra gutturosa

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AIM

Mongolian gazelle is a traditional ungulate game species of Mongolia. During the rut in December, males held harems and defend them against other males. The aim of this study was to describe vocalizations produced by male and female Mongolian gazelles during the rut.

METHODS

Daursky Nature Reserve, Transbaikalia, Russia (50.01N; 115.72E)



4 automated SongMeter SM2+ recorders (900 h in total)

Acoustic analyses in Avisoft SASLab Pro

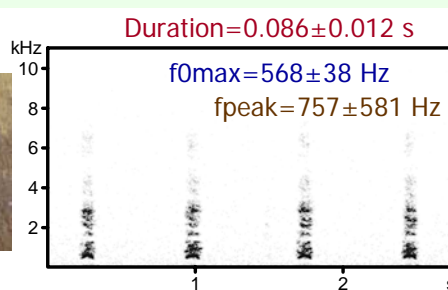
10 - 25 December 2017

CALL ACOUSTICS



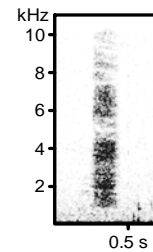
Male calls

Oral bark



Most common rutting call of harem male. Produced with slightly opened mouth, commonly in series of up to a few dozen calls

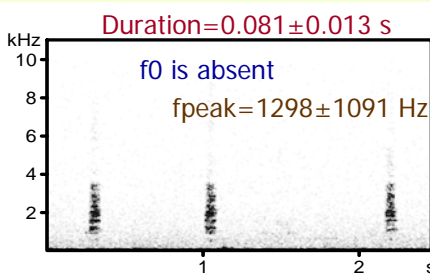
Nasal snort



Duration 0.20 - 0.25 s
 f_0 is absent

Produced at a strong expiration, in the situations when animal spotted people or a car

Nasal bark



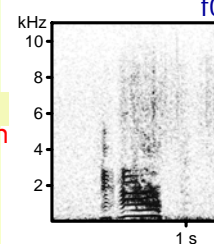
Produced with close mouth, commonly in series of up to a few dozen calls

Produced with widely opened mouth during an intense inspiration, commonly within series of barks emitted during fast female chasing

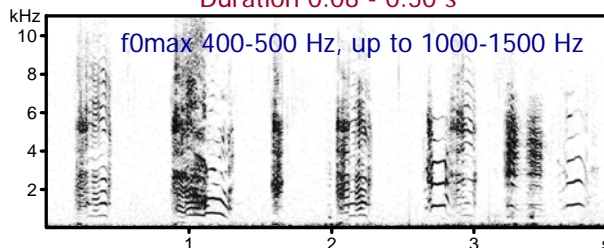
Running call

Duration up to 0.5 s

f_{0max} 200-300 Hz

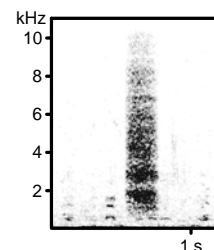


Cat call



Most common female call. Produced singly or in irregular series during contacts with females within a harem or when running from a chasing male

Nasal snort



Duration 0.20 - 0.25 s
 f_0 is absent

Similar with male snorts, but were often produced in irregular series

CONCLUSION

This is the first investigation of calls produced by male and female Mongolian gazelles during the rut. In contrast to males, the female calls were surprisingly high-frequency for such large animals and acoustically undistinguishable from the calls of neonate Mongolian gazelles, described in a previous study.

