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ABSTRACT BOOKLET
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Refer to conference programme for schedule

Syllable types and acoustic variables of ultrasonic vocalisation in pup and adult fat-tailed gerbils (*Pachyuromys duprasi*)

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Ultrasonic vocalisations (USVs) of laboratory rodents indicate animal emotional arousal and may serve as models of human disorders. We analysed spectrographically USV calls of pup and adult fat-tailed gerbils (*Pachyuromys duprasi*) during 420-s tests, including isolation, touch and handling. Based on combination of six different USV syllable contour shapes and six different note compositions, we classified 782 USV syllables of 24 pups aged 5 - 10 days to 18 types and 232 syllables of seven adults to 24 types. Pups and adults shared 16 of these 26 USV types. Percentages of USV syllables with certain contour shapes differed between pups and adults. The contour shape and note composition significantly affected most acoustic variables of USV syllables in either pups or adults. The 1-note USV syllables were most common in either pups or adults. Pup USV syllables were overall longer and higher frequency than adult ones, reminiscent of the USV ontogenetic pathway of bats and distinctive to rats and mice. We discuss that the USV syllable types of fat-tailed gerbils were generally similar in contour shapes and note compositions with USV syllable types of mice and rats. In fat-tailed gerbils, the overall USV fundamental frequency range was from 18 kHz to 120 kHz, and the duration of USV calls ranges from 2 ms to 350 ms. This frequency range is comparable with those reported in rats, from 20 kHz to over 90 kHz, whereas the duration range in rats is different, from approximately 10 ms to over 3500 ms. This research was supported by RSF (grant 19-14-00037).