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Title:	Variation in call types, calling activity patterns and relationship between call frequency and body size in a field cricket, <i>Acanthogryllus asiaticus</i>
Authors:	Singh, Richa (/jspui/browse?type=author&value=Singh%2C+Richa) Jain, Manjari (/jspui/browse?type=author&value=Jain%2C+Manjari)
Keywords:	Seasonality diel activity allometry inter-tooth distance post copulatory call
Issue Date:	2021
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Citation:	Bioacoustics, 30(3), 284-302.
Abstract:	In this study, we examined the temporal variation in calling activity of a field cricket, <i>Acanthogryllus asiaticus</i> on a diel and seasonal scale. We also examined the acoustic structure of calls produced in the context of mating, namely, long distance mating call (LDMC), courtship call and post copulatory call. Finally, we examined the allometric relationship between sound-producing structures and body morphometry and tested whether peak frequency of LDMC was indicative of male body size. Our findings suggest that calling activity of <i>A. asiaticus</i> peaked between 2100 and 2400 h on a diel scale and between March and May (summer) on a seasonal scale. The three calls were acoustically distinct and stereotypic with the courtship and post copulatory calls being composed of two chirp-types each. This study presents the first description of post copulatory calls of a field cricket. Morphometric analyses revealed that both inter-tooth distance and teeth width varied along the file length, however, number of teeth and file length were not correlated. Harp area was correlated with body size and peak frequency was significantly negatively correlated with harp area. This implies that the peak frequency can potentially be an indicator of body size in this species.
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