

Influence of Sex on the Nutritional Value of Wild Field Cricket (*Gryllus* sp.) in Bangladesh

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Abstract—Field Cricket (*Gryllus* sp.) is one of the most consumable species among the 17 edible insect species of Marma ethnic community of Bangladesh. A pre-studied survey revealed that Marma ethnic peoples prefer to eat the egg-bearing female field cricket than the male without knowing the differences of the nutritive value of both species. Therefore, this study was conducted to evaluate the nutritive value of both male and female wild field cricket. It was evident that the nutritional value was partly influenced by sex. Both the male and female field cricket was found rich in nutrition. The moisture content of male and female was $70.80 \pm 95\%$ and $59.82 \pm 80\%$ respectively. On the basis of dry matter contents, the crude protein, crude fat, crude fiber and ash were 62.76 ± 76 , 22.29 ± 35 , 13.09 ± 48 and $3.87 \pm 40\%$ in male and 48.61 ± 59 , 29.61 ± 57 , 8.27 ± 52 and $4.27 \pm 44\%$ in female wild field cricket. Males contained a significantly higher amount of protein and fiber and lower amount of fat than the female. Only ash content was found uninfluenced by sex. Fatty acid profile was determined by Gas Chromatography-mass spectrometry (GC-MS). GC-MS Results showed that both male and female had 9-Hexadecenoic, Hexadecanoic, 9,12-Octadecadienoic, 9-Octadecenoic and Octadecanoic acid however Methyl tetradecanoate was found only in female wild cricket.