Entomophagy or the practice of eating insects has become a trend in western countries. Edible insects have also been recognised as an alternative protein to counter its high demand due to our world’s growing population. However, apart from pockets of the country, the acceptance of insects as food and the factors that influence its acceptance in Malaysia are still unclear. Therefore, this study aimed to determine the acceptance of grasshoppers and other insects as food and its influencing factors among adults in Kuching and Klang Valley. A cross-sectional survey was conducted among 292 adult respondents from Kuching (n=148) and Klang Valley (n=144). Data regarding sociodemography, readiness and acceptance of insects as food, and factors that influence its acceptance were collected using self-administrated online questionnaire. Majority of respondents (96.7%) had prior knowledge of people eating grasshoppers or other insects as food. However, only about one third (35.6%) had previously tried to eat grasshoppers or other insects. The readiness and acceptance of the respondents towards eating grasshoppers and other insects as food were only 30.1% and 18.2%, respectively, with no significant difference between those from Kuching and Klang Valley. The acceptance of biscuits made with insect flour was significantly higher (p<0.001) compared to other food products with insects in different forms. The main factors that influence acceptance of insects as food were insect texture, food safety and feelings of disgust towards insects, although cultural and religious aspects and lack of knowledge about insect-eating also influenced their acceptance. In conclusion, the acceptance of grasshoppers and other insects as food among adults in Kuching and Klang Valley is still low with sensory characteristics, food safety and aversion towards insects being the main barriers. Future studies involving the population of different regions should be conducted to enrich the data of entomophagy in Malaysia.