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Research Article

Core members and differential abundance of chrysomelid microbiota in the life stages of *Podontia affinis* (Galerucinae) and adult *Silana farinosa* (Cassidinae, Coleoptera)

Sze-Looi Song[‡,§], Hoi-Sen Yong[|], Kah-Ooi Chua[¶], Praphathip Eamsobhana[#], Phaik-Eem Lim[§], Kok-Gan Chan[|]

‡ Institute for Advanced Studies, Universiti Malaya, Kuala Lumpur, Malaysia
§ Institute of Ocean and Earth Sciences, Universiti Malaya, Kuala Lumpur, Malaysia
| Institute of Biological Sciences, Faculty of Science, Universiti Malaya, Kuala Lumpur, Malaysia
¶ Centre for Research in Biotechnology for Agriculture, Universiti Malaya, Kuala Lumpur, Malaysia
# Department of Parasitology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand

Corresponding author: Sze-Looi Song (szelooi@um.edu.my)

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Abstract

The chrysomelid beetles *Podontia affinis* and *Silana farinosa* are members of the subfamilies Galerucinae and Cassidinae, respectively. This study, based on 16S rRNA gene-targeted metagenomics sequencing, reports the core members and differential abundance of bacterial communities in the larvae and adult beetles of *P. affinis* and the adult *S. farinosa*. Cyanobacteria/Melainabacteria group was the predominant phylum in the larvae of *P. affinis*, while Proteobacteria was the predominant phylum in adult *P. affinis* and *S. farinosa*. The number of Order, Family, Genus and Species OTUs in the adult stage of *P. affinis* was higher than that in the larval stage. The bacterial species richness of adult *P. affinis* was significantly higher than that of adult *S. farinosa*. Betaproteobacteria was the predominant class in adult *P. affinis*, Cyanobacteria in the larvae of *P. affinis* and Gammaproteobacteria in *S. farinosa*. The larvae and adult beetles of *P. affinis* and adult *S.*