

Supplementary Information

Journal: PeerJ

Bacterial community associated with worker honeybees (*Apis mellifera*) affected by European foulbrood

TOMAS ERBAN^{1,*}, ONDREJ LEDVINKA^{1,2}, MARTIN KAMLER³, BRONISLAVA HORTOVA¹, MARTA NESVORNA¹, JAN TYL³, DALIBOR TITERA^{3,4}, MARTIN MARKOVIC¹, JAN HUBERT¹

Authors information:

¹Crop Research Institute, Prague, Czechia

²Czech Hydrometeorological Institute, Prague, Czechia

³Bee Research Institute at Dol, Libcice nad Vltavou, Czechia

⁴Department of Zoology and Fisheries / Faculty of Agrobiology Food and Natural Resources / Czech University of Life Sciences, Prague, Czechia

***Corresponding author:**



Tomas Erban

Crop Research Institute

Proteomics and Metabolomics Laboratory

Drnovska 507/73, Prague 6-Ruzyně

CZ-16106

Czechia

E-mail: arachnid@centrum.cz

Figure S1. Rarefaction analyses of *Apis mellifera* samples in control colonies (EFB0). The list of samples is provided in Table S1.

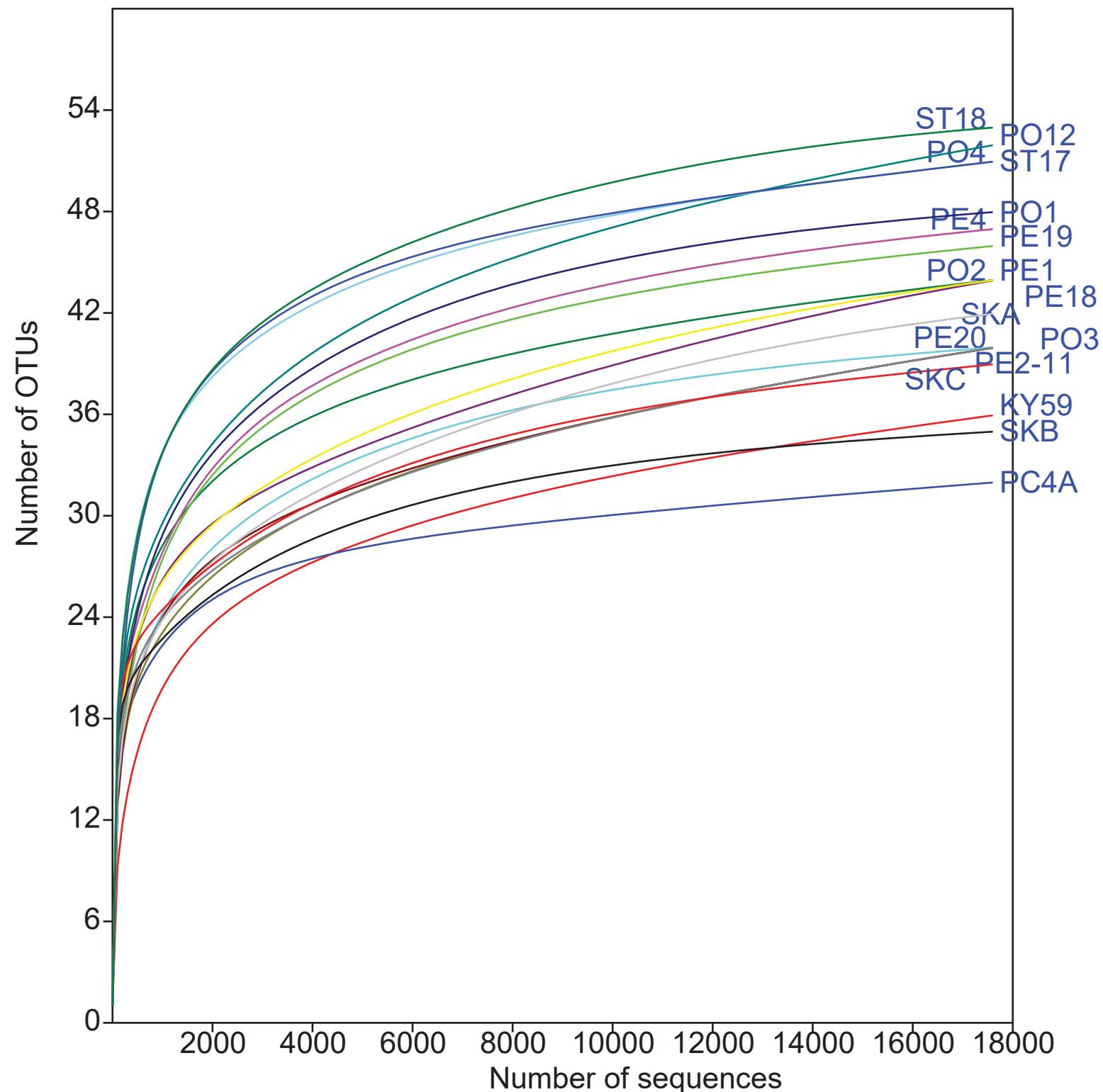


Figure S2. Rarefaction analyses of *Apis mellifera* samples in colonies without symptoms of EFB (EFB1). The list of samples is provided in Table S1.

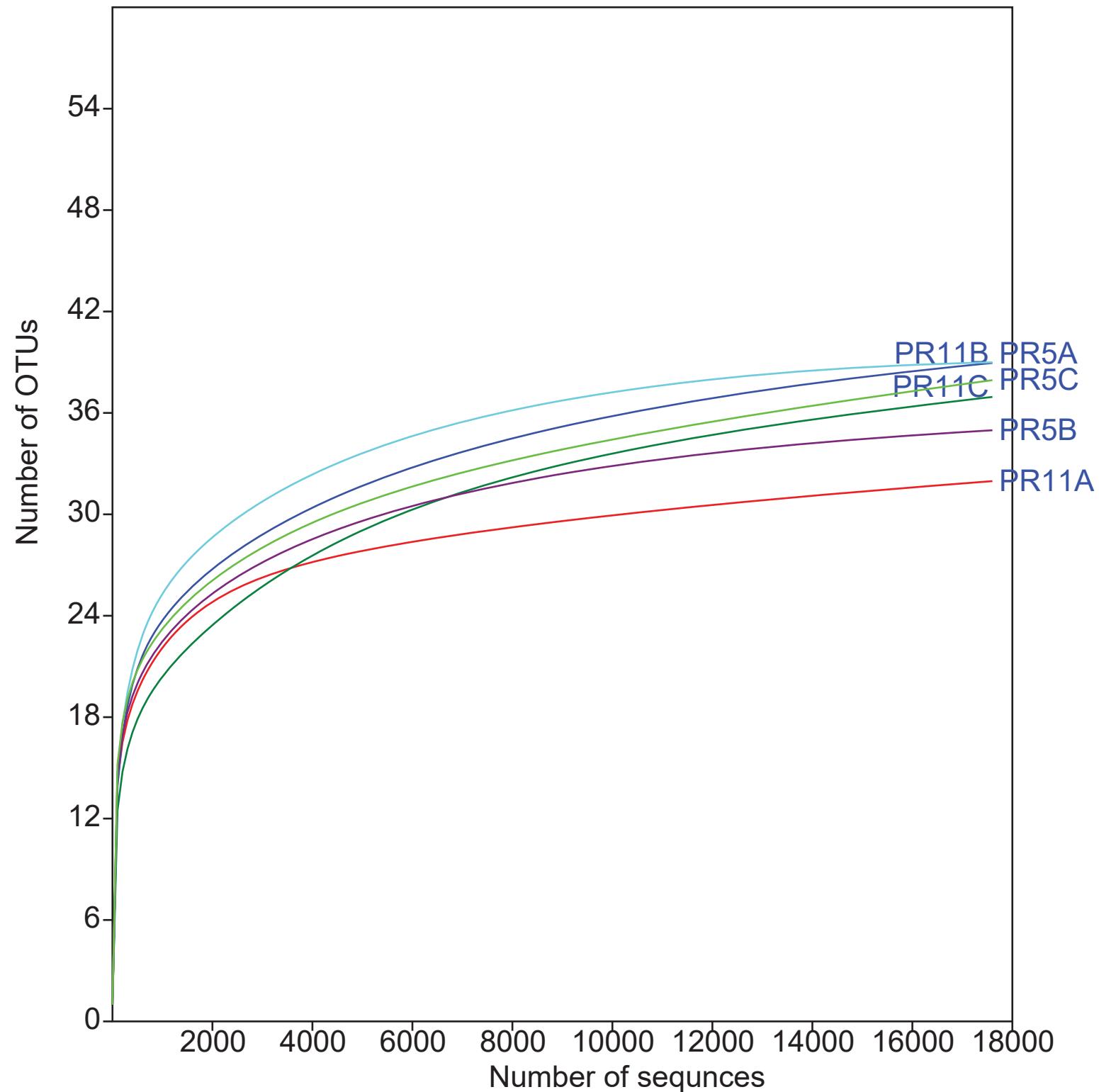


Figure S3. Rarefaction analyses of *Apis mellifera* samples in colonies with clinical symptoms of EFB (EFB2). The list of samples is provided in Table S1.

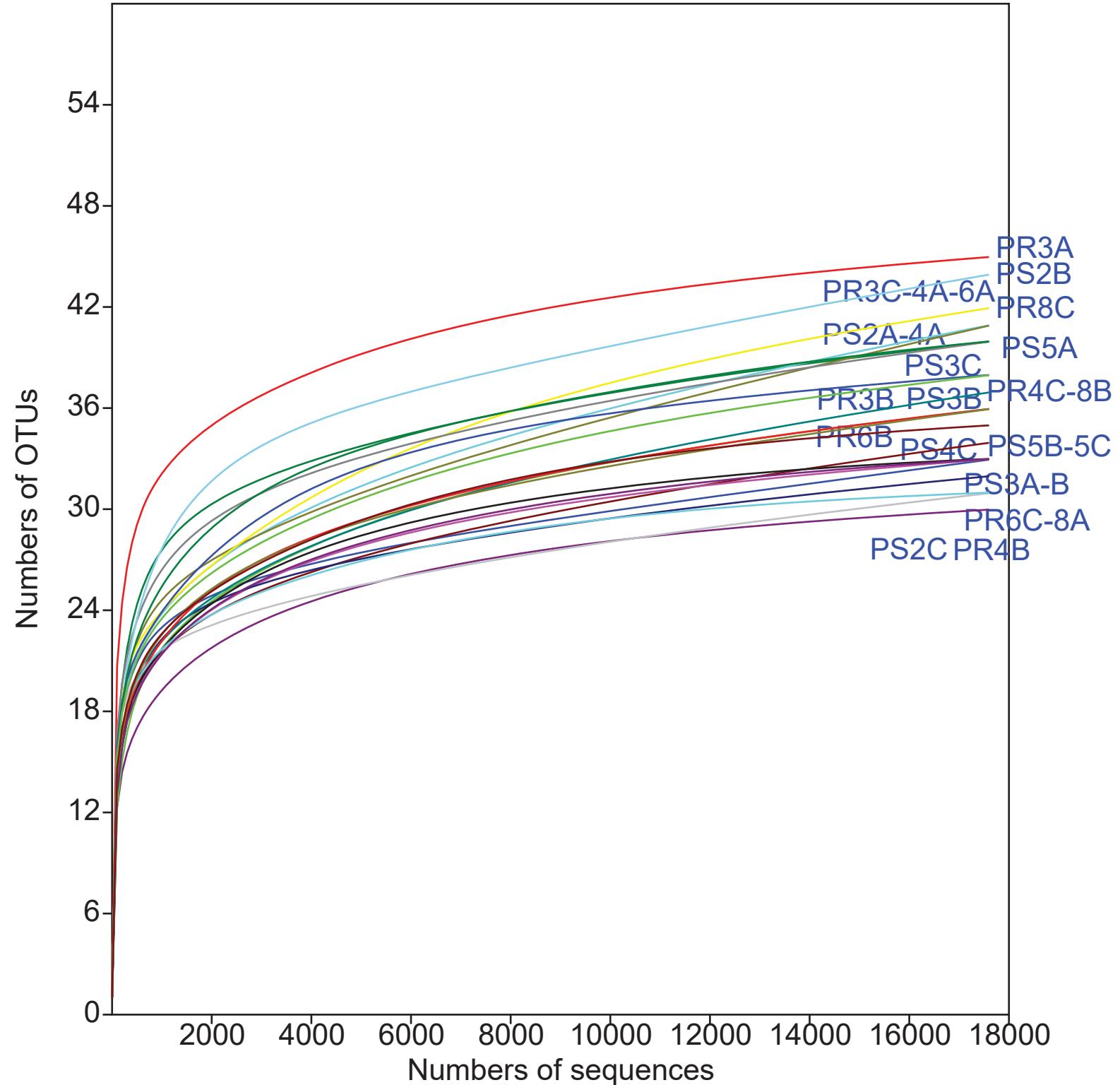


Figure S4. Krona projection of the microbiomes in honeybee worker samples. Mean Krona projections were constructed from subsamples for different situations according to EFB occurrence. Coding for the sample types: EFB0 – control outside the EFB zone without signs of EFB; (ii) EFB1 – bees from an EFB apiary but from colonies without clinical symptoms; and (iii) EFB2 – bees from colonies with clinical symptoms of EFB.

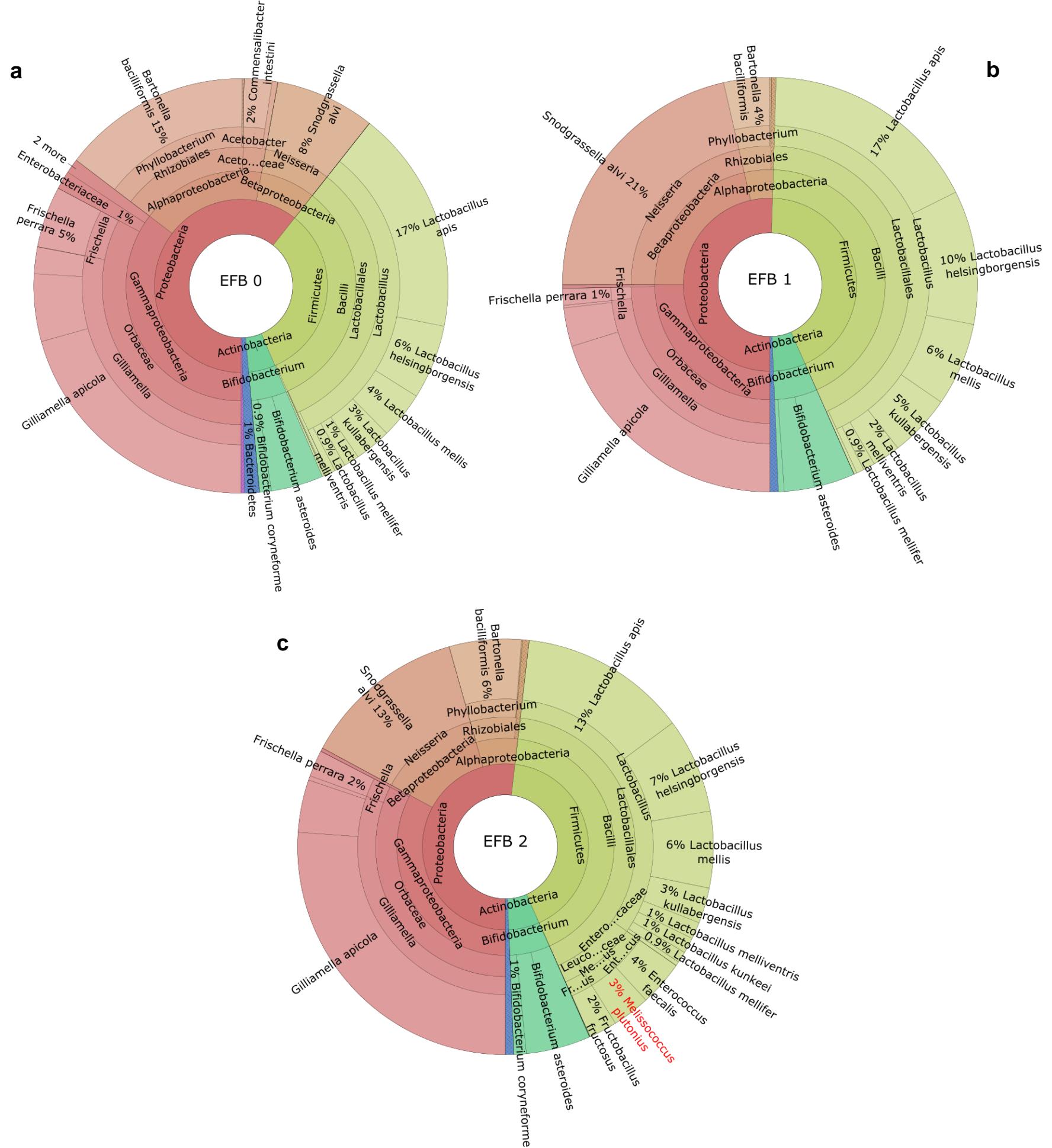


Figure S5. Comparison of the number of *Melissococcus plutonius* sequences in honeybee worker samples.

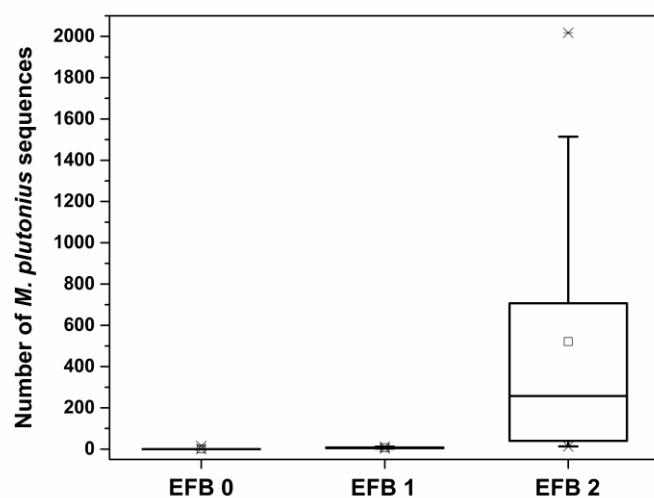


Figure S6. (on next page) Heatmap (**A**) and heatmap in logarithmic scale (**B**) describing the distribution of samples and OTUs in the *Apis mellifera* bacterial community.

Legend: green - EFB0; yellow - EFB1; orange - EFB2.

For the legend of samples, see Table S1 and Table 2.

