

# Microbiome landscape changes of the coastal of Yucatán

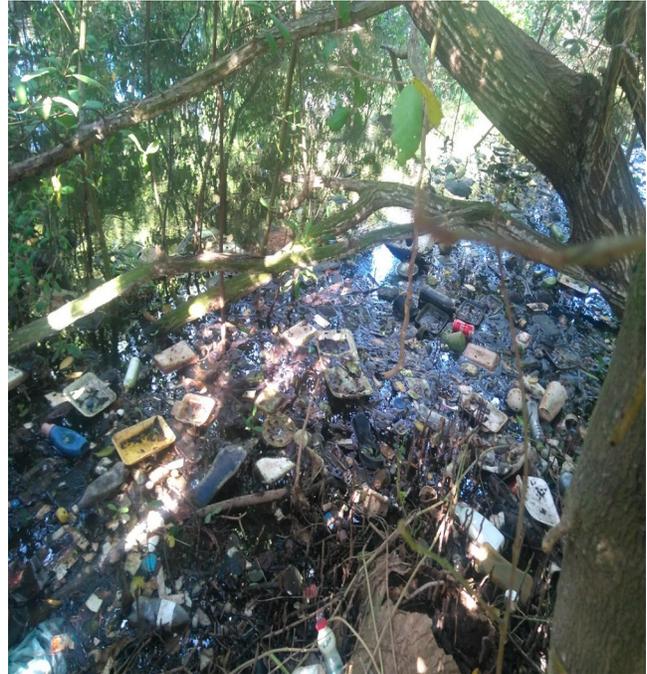
Herón Navarrete-Euan<sup>1</sup>, Zuemy Rodriguez-Escamilla<sup>1</sup>, Ernesto Pérez-Rueda<sup>2</sup>, Karla Escalante-Herrera<sup>1</sup> and Mario Alberto Martínez-Nuñez<sup>1,\*</sup>

<sup>1</sup> UMDI-Sisal, Facultad de Ciencias, Universidad Nacional Autónoma de México. Mérida, Yucatán, México; [heronnavarrete@hotmail.com](mailto:heronnavarrete@hotmail.com) (H.N.E.); [zuemy.rodriguez@gmail.com](mailto:zuemy.rodriguez@gmail.com) (Z.R-E.); [susana\\_escalante@hotmail.com](mailto:susana_escalante@hotmail.com) (K.E-H.)

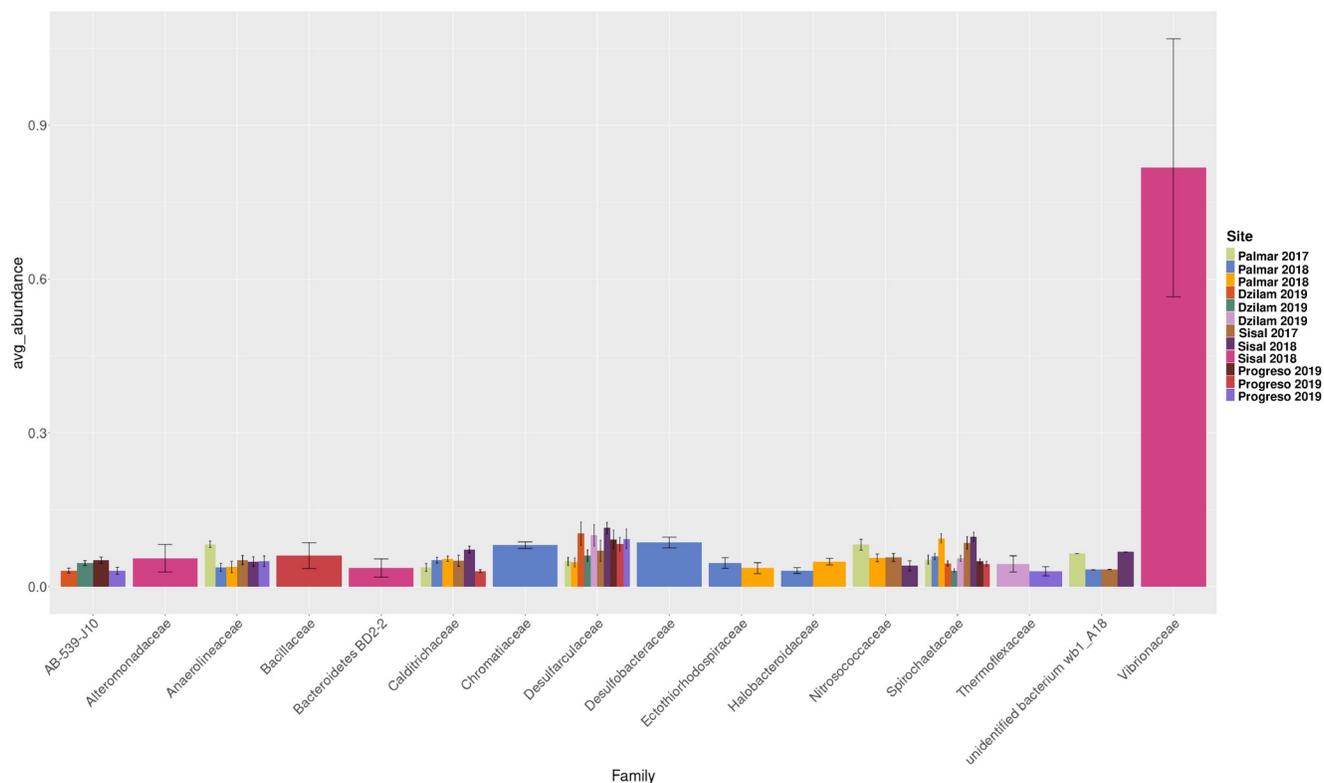
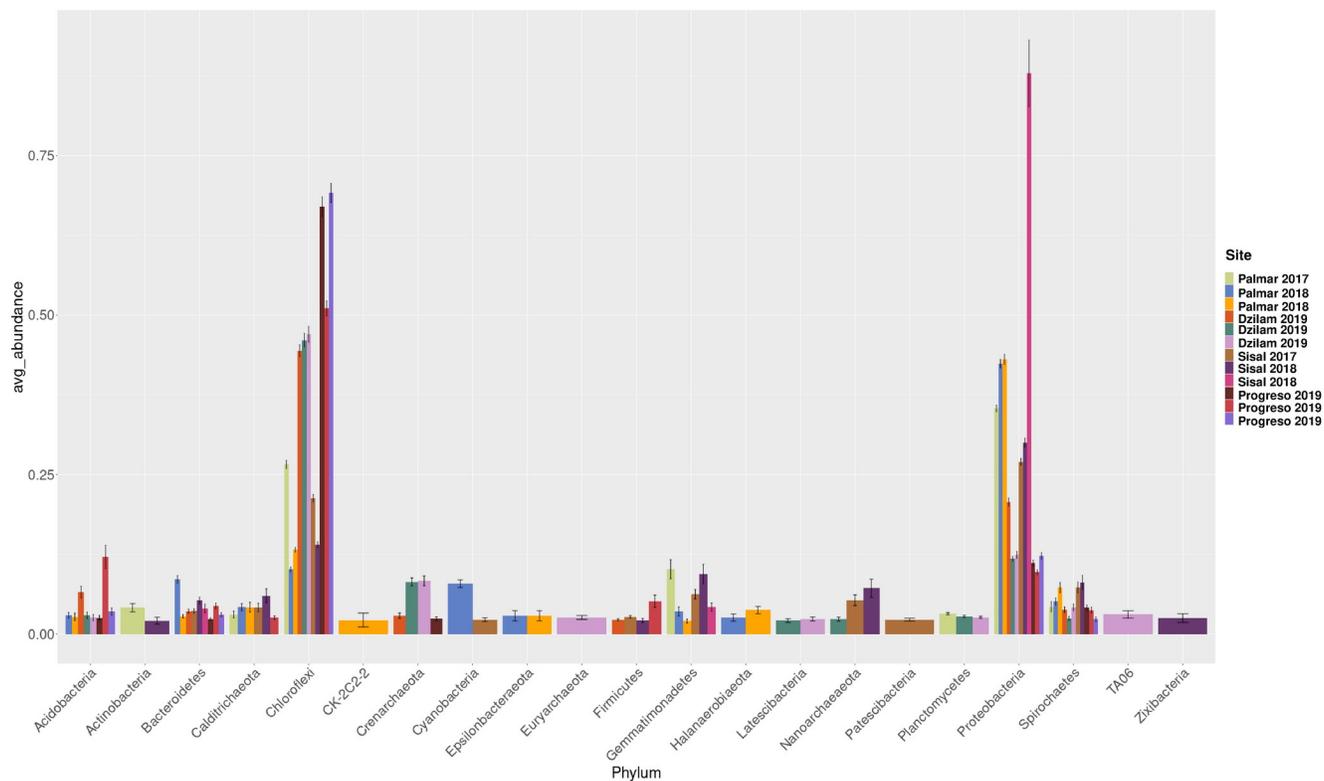
<sup>2</sup> Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, UNAM. Unidad Académica Yucatán. Mérida, Yucatán, México; [ernesto.perez@iimas.unam.mx](mailto:ernesto.perez@iimas.unam.mx)

\* Correspondence: [mamn@ciencias.unam.mx](mailto:mamn@ciencias.unam.mx); Tel.: +52 999 3410860, ext. 7631.

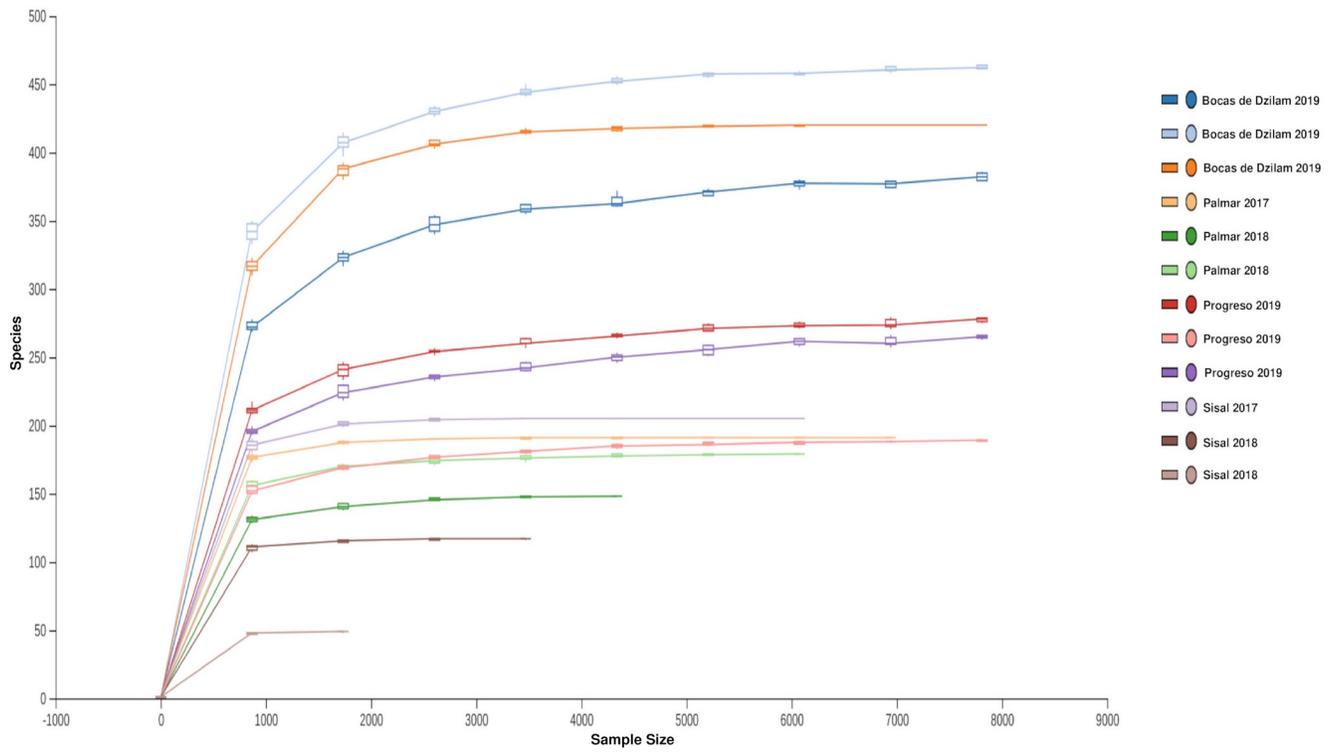
## Supplementary Figures.



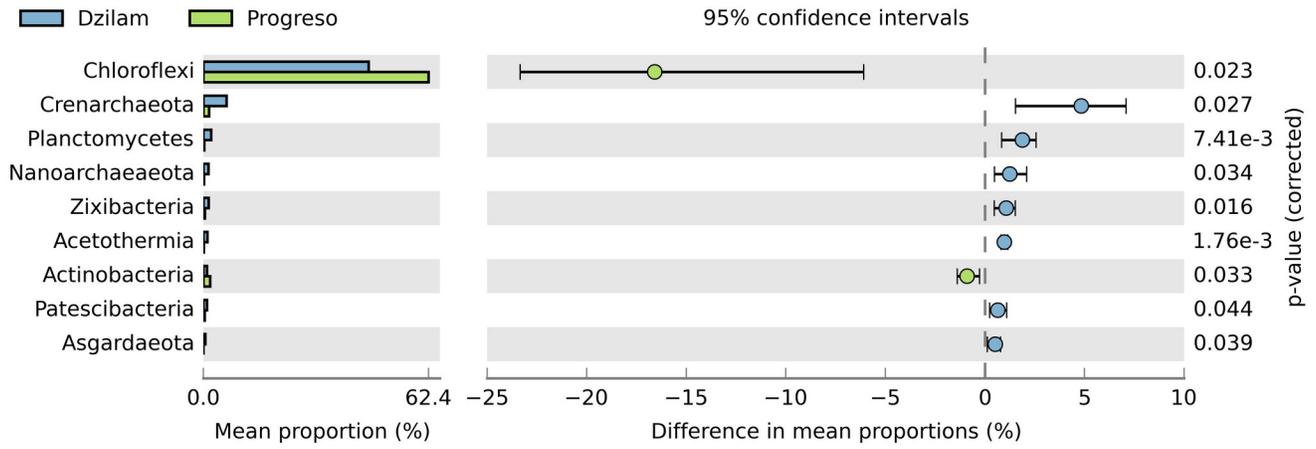
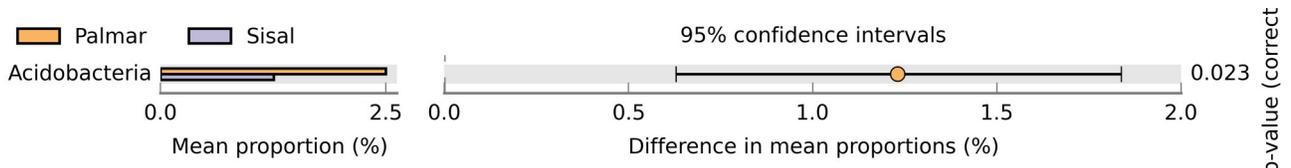
**Supplementary Figure S1.** Sampled sites at Sisal (left) and Progreso (right). The garbage deposited in the wetlands by the residents can be observed.



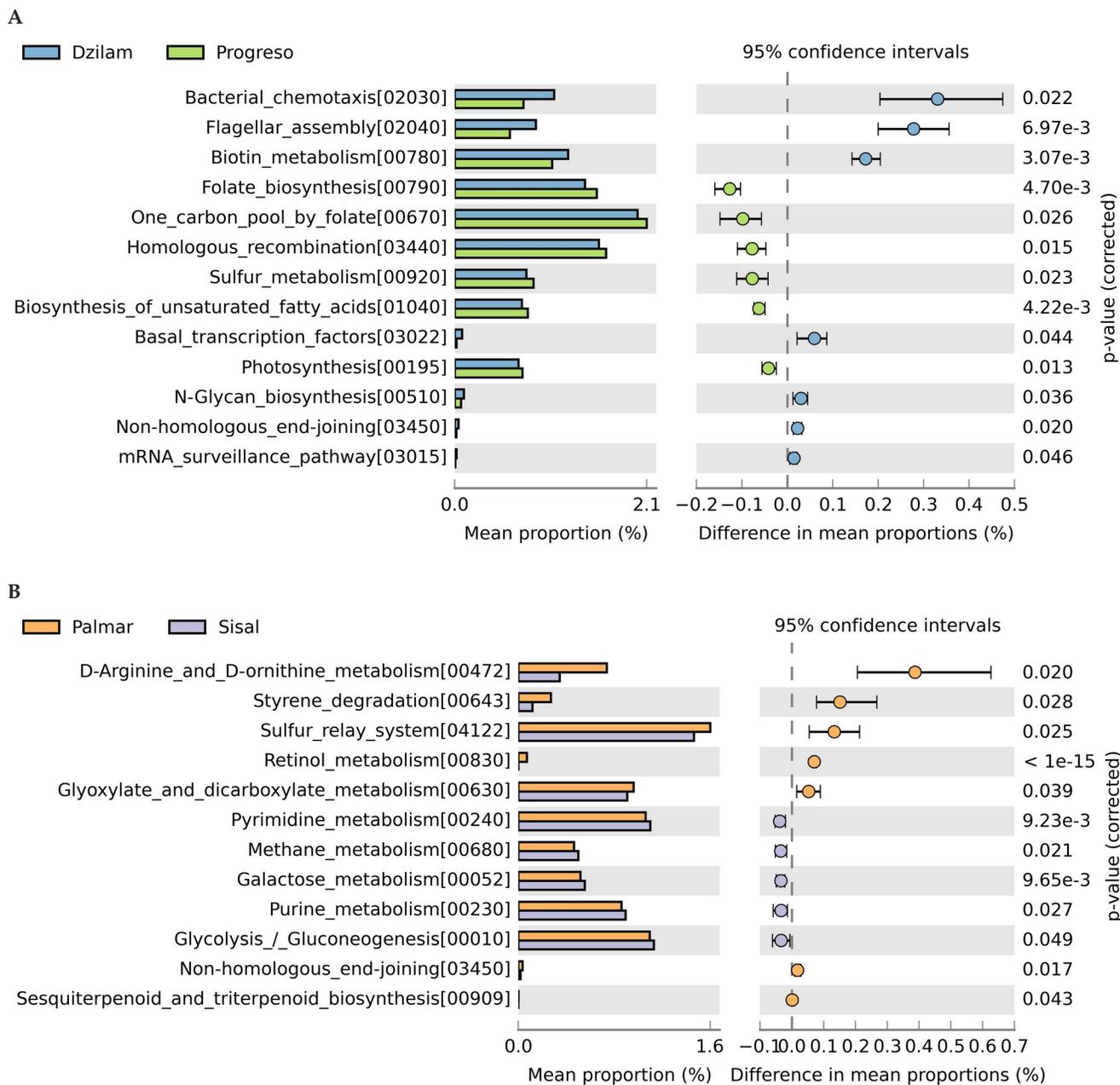
**Supplementary Figure S2.** Relative abundance of bacteria composition and their standard deviation across the four wetland sampling sites at (upper) phylum and (bottom) family levels. Bocas de Dzilam: conserved site; El Palmar: conserved site; Progreso: contaminated site; Sisal: contaminated site. X-axis: taxon. Y-axis: relative abundance of taxon.



**Supplementary Figure S3.** Rarefaction curves-based of the phylogenetic prokaryotic diversity of the studied sites. X-axis: Number of species annotated. Y-axis: Sample size as number of reads obtained from sequencing.

**A****B**

**Supplementary Figure S4.** Metataxonomic profile comparisons of differentially phylotypes between conserved sites (Bocas de Dzilam and El Palmar) and contaminated sites (Progreso and Sisal) using STAMP analysis. **A:** analysis at phylum level of Bocas de Dzilam and Progreso samples. **B:** analysis at phylum level of Palmar and Sisal samples.



**Supplementary Figure S5.** Metabolic pathways profile comparisons between study sites. **A:** Bocas de Dzilam and Progreso. Blue bar: conserved site; green bar: contaminated site. **B:** El Palmar and Sisal. Orange bar: conserved site; purple bar: contaminated site. Statistical analyzes were done with STAMP analysis. Analyses were carried out at level 3 of specific pathway associated with a specific function using KEGG database.