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Correction

A complex interplay of evolutionary forces continues to shape ancient co-occurring symbiont genomes

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In the original version of this article, genes annotated as being lost in the genomes of the Nesophrosyne Hawaiian leafhopper symbionts "Candidatus Sulcia muelleri" and "Ca. Nasuia deltocephlinacola" are actually present. Several of these genes, particularly in Nasuia, were not recognized by initial annotation efforts and software packages. The authors revised their annotation approach and manually inspected each identified loss for further annotation inference errors. Following reannotation of these gene regions, the authors updated their gene loss and retention counts and revised Figures 1 and 2 to reflect these new data and results. The discussion section of the original text related to the inferred loss of the following genes no longer applies: Sulcia (rpsO, pheT, rbfA, infC) and Nasuia (rsmD, rpmJ, rpmG, rpsQ, rpsS, SCO2, hisD). The authors confirm that this does not impact the scientific message of the paper, as convergent and unique gene loss still occurs in closely related species. The authors apologize for any inconvenience caused to the readers. The authors cordially invite others to continue to check and reproduce scientific work. The authors thank Dr. Alejandro Manzano Marín for pointing out these errors to us, as well as pointing out the methodological errors that can result in these kinds of mis-annotations. The methodological problems leading to these kinds of mis-annotations may be common in other such comparative genomic work for tiny A+T nucleotide rich symbiont genomes.



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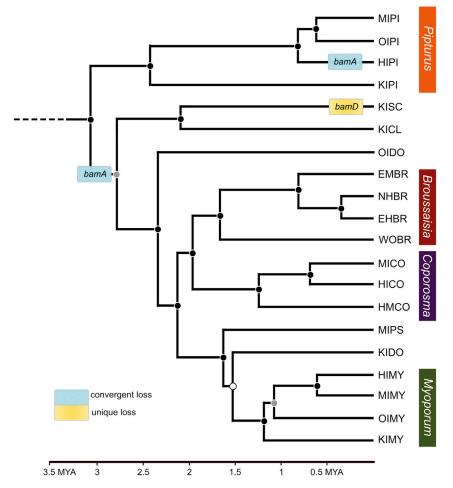


Figure 1. Convergent and unique gene loss among *Sulcia* genomes from endemic Hawaiian leafhoppers (*Nesophrosyne*) (corrected)





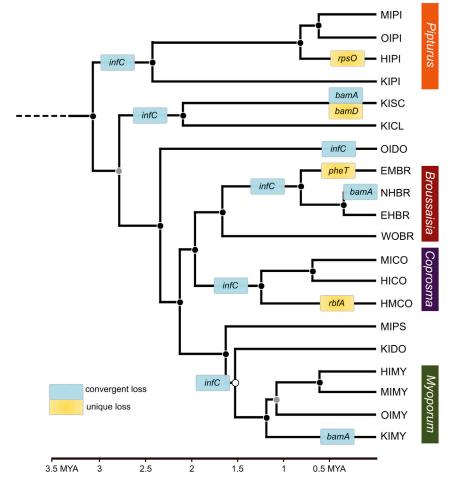


Figure 1. Convergent and unique gene loss among *Sulcia* genomes from endemic Hawaiian leafhoppers (*Nesophrosyne*) (original)





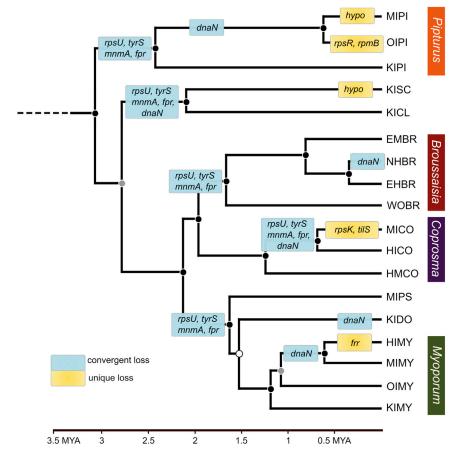


Figure 2. Convergent and unique gene loss among *Nasuia* genomes from endemic Hawaiian leafhoppers (*Nesophrosyne*) (corrected)



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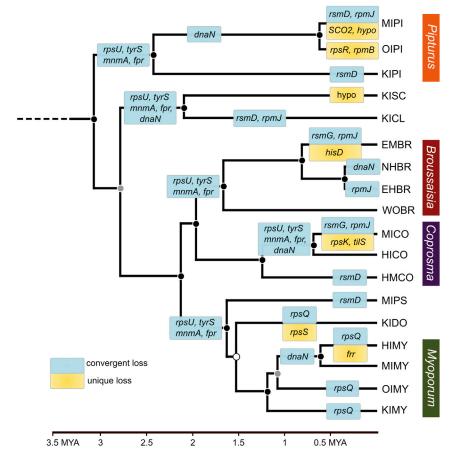


Figure 2. Convergent and unique gene loss among *Nasuia* genomes from endemic Hawaiian leafhoppers (*Nesophrosyne*) (original)