

Heath Blackmon  
July 12, 2020

To Whom it May Concern:

Enclosed please find our manuscript "Mode and tempo of microsatellite evolution across 300 million years of insect evolution" by Jonika et al. for submission to Genes. Though microsatellites are a fundamental component of genomes the evolutionary dynamics of microsatellite over long time periods are poorly understand. To address this gap in our knowledge we have performed comparative analyses of more than 200 insect genomes. We investigated the impact of assembly quality, genome size, chromosome type, and number on both the content and rate of microsatellite evolution. We show that diploid chromosome number has no impact on the rate of microsatellite evolution or the amount of microsatellite content in genomes, and that centromere type (holocentric or monocentric) is not associated with a difference in the amount of microsatellite content. However, we do find relationships between genome size and microsatellite content and rate of evolution and we show that clades with monocentric chromosomes evolve faster than clades with holocentric chromosomes..

Thank you very much for your time and consideration.

Sincerely,

A handwritten signature in black ink that reads "Heath Blackmon".

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