

Why to Sequence *Monomorium Minimum* (Little Black Ant)

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The little black ant (*Monomorium minimum*) is a species of ant native to North America common in households^[1]. There are 358 valid species in genus *Monomorium* as of 2018^[1] the only one to have been sequenced in this genus being *Monomorium pharaonic* (pharaoh ant) native to Africa^[2]. Both species of ants have demonstrated adaptability into the urban and rural environments becoming common household pests in both of their countries of origin^[3]. As pests, they are infamous for being difficult to control getting into food and hospitals^[4]. With their ability to transmit pathogens such as *Salmonella* spp, *Staphylococcus* spp, and *Streptococcus* spp^[5] they are a dangerous and problematic pest. Notable phenotypic differences between both species of ants include *M. minimum* being much smaller than *M. pharaonic*, 1mm compared to 2mm^[1]. Also, *M. minimum* and *M. pharaonic* are both polygynous^[1] meaning that each colony can have more than 1 queen previously known to increase genetic diversity between members of the colony and lower competition between neighboring colonies^[4]. Understanding and comparing the genomes of *M. minimum* and *M. pharaonic* could offer greater understanding into the evolutionary differences between the species of ants and highlight the similarities which allow both species to thrive alongside people. Also deeper genetic understanding of *M. minimum* could provide avenues for safe and effective pest control in the American regions which they reside.

References:

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