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Genomic basis of a social polymorphism in a halictid bee Sarah Kocher, Cai Li, Hopi Hoekstra, Guojie Zhang, Naomi Pierce, Douglas Yu

Species exhibiting natural phenotypic variation are ideal for ecological genomic studies aimed at identifying some of the key genetic and environmental factors underlying the evolution of these traits. *Lasioglossum albipes* is a polymorphic halictid bee that varies in social behavior across populations. Common-garden experiments have suggested that this variation is likely to have a strong genetic component. A draft genome for this species is now complete, facilitating a population genomic approach to identify the key genetic differences underlying the behavioral polymorphism in this species. Whole-genome resequencing of solitary and social individuals identified a small number of genes that appear to be rapidly diverging between social forms. These genomic resources also facilitate comparative studies among additional solitary, social, and polymorphic halictid species to search for common genetic mechanisms associated with social transitions in this group.