Calligrapha: Evolution of Behaviour, Metabolism and Reproduction in Unisexual and Bisexual Beetles

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Specific Objectives

- The evolution of sex-related genes can be studied using molecular techniques to understand their role in adaptation and speciation.
- Comparative genomics can be used to identify conserved and divergent sex-related genes across different species and lineages.
- The role of sex-biased genes in determining sex-specific differences in behavior, metabolism, and reproduction can be examined.

Methods

- Protocol for sample collection and sequencing in unisexual and bisexual beetles
- Comparison of gene expression patterns in different developmental stages and environments
- Analysis of metabolic pathways and stress response

Specific References


Expected Results & Specific Output

- Genes involved in sex determination and sex-specific traits identified
- Comparative transcriptome analysis of sex-biased genes across species
- Metabolic pathways and stress response profiles in different environments

Selected References