



THE GENOMIC BASIS AND ARCHITECTURE OF LOCAL ADAPTATION WITH GENE FLOW

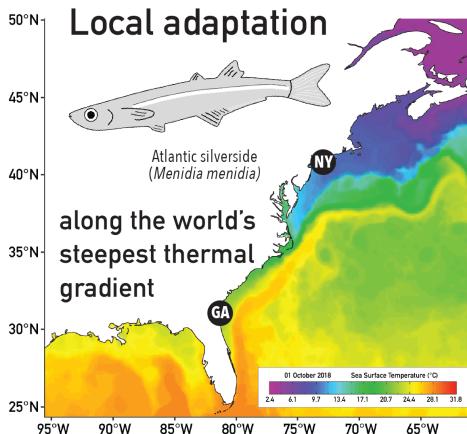
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@mariaakop

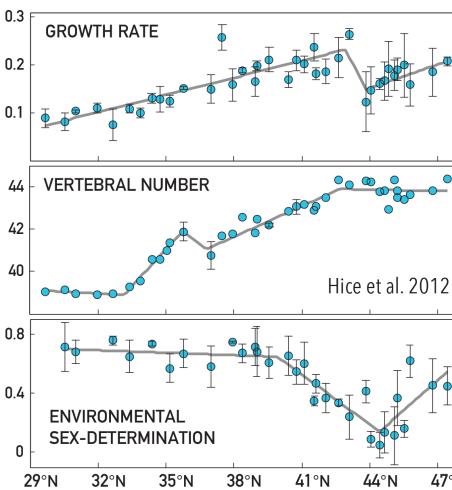


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BACKGROUND



Adaptive traits vary with latitude



BIG PICTURE QUESTIONS

How does adaptive divergence evolve in the face of homogenizing gene flow?

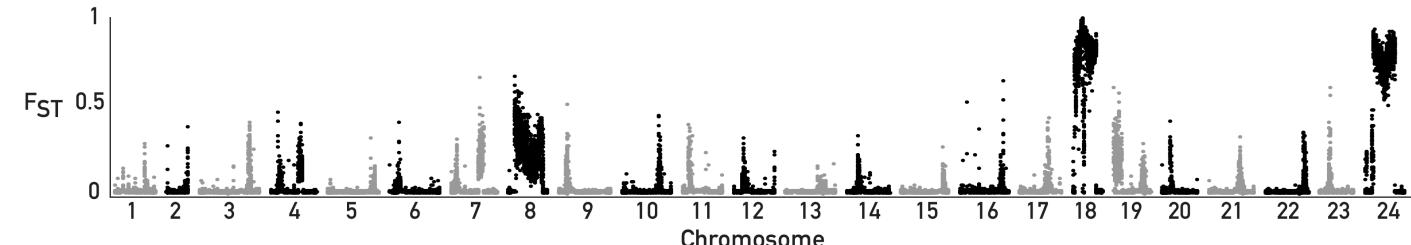
What is the role of genome architecture?

RESEARCH METHODS

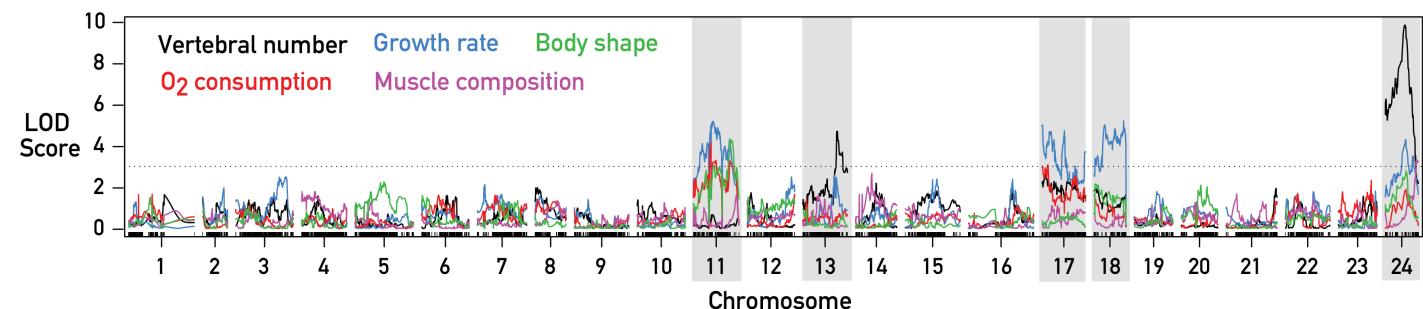
- Population genomics
- Quantitative trait loci mapping
- Comparative linkage mapping

OUR RESULTS

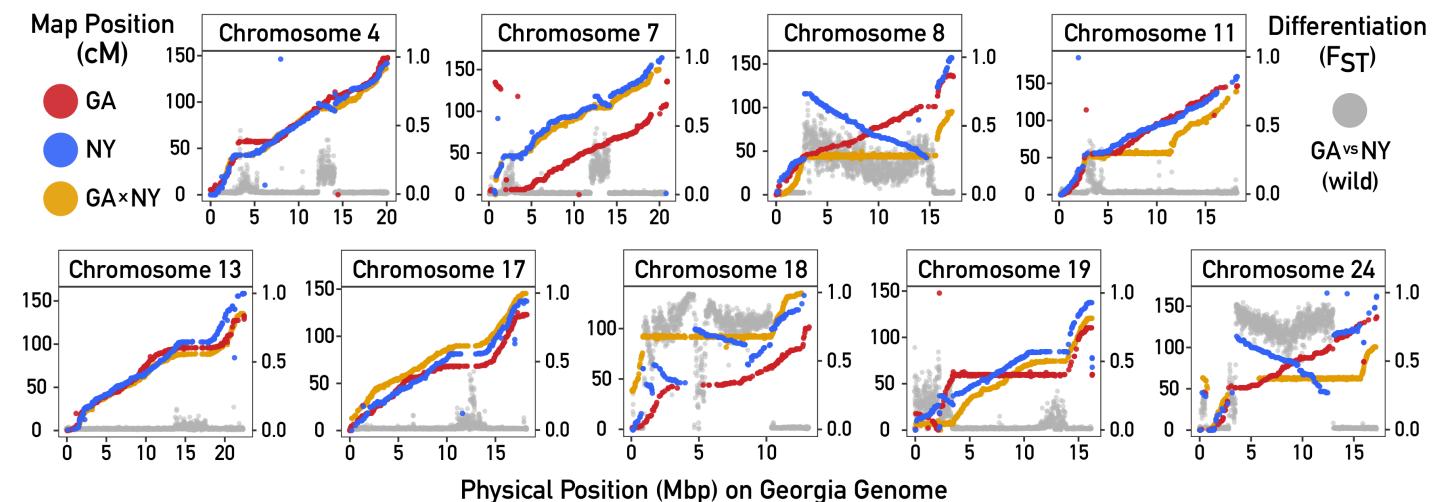
1. Islands of divergence punctuate low levels of genome-wide differentiation between GA and NY



2. Quantitative trait loci (QTL) associated with adaptive traits map to peaks of differentiation



3. Inversions and recombination cold spots colocalize with QTL and peaks of differentiation



ADAPTIVE DIVERGENCE IN THE FACE OF HOMOGENIZING GENE FLOW IS FACILITATED BY GENOMIC FEATURES THAT SUPPRESS RECOMBINATION BETWEEN POPULATIONS