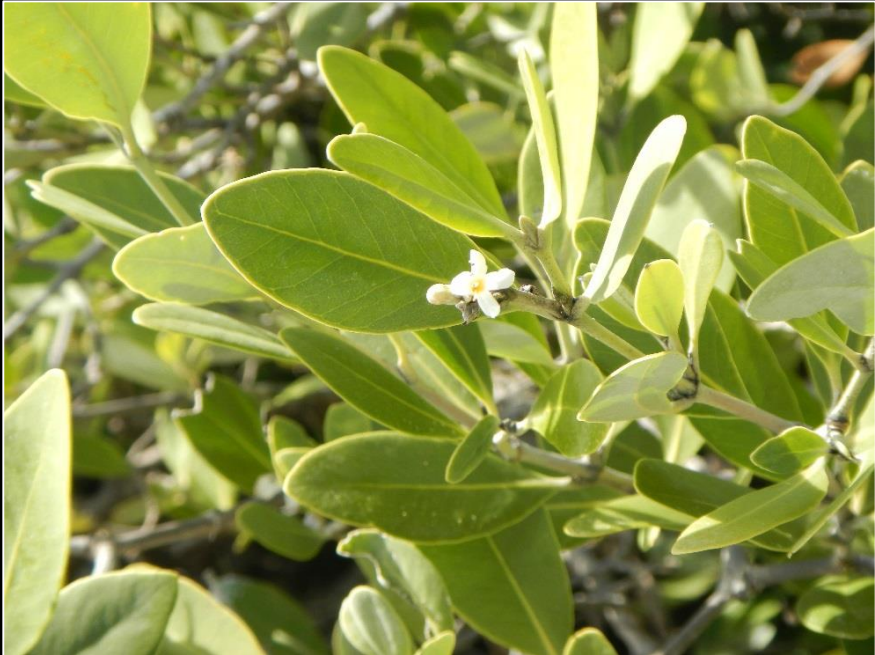
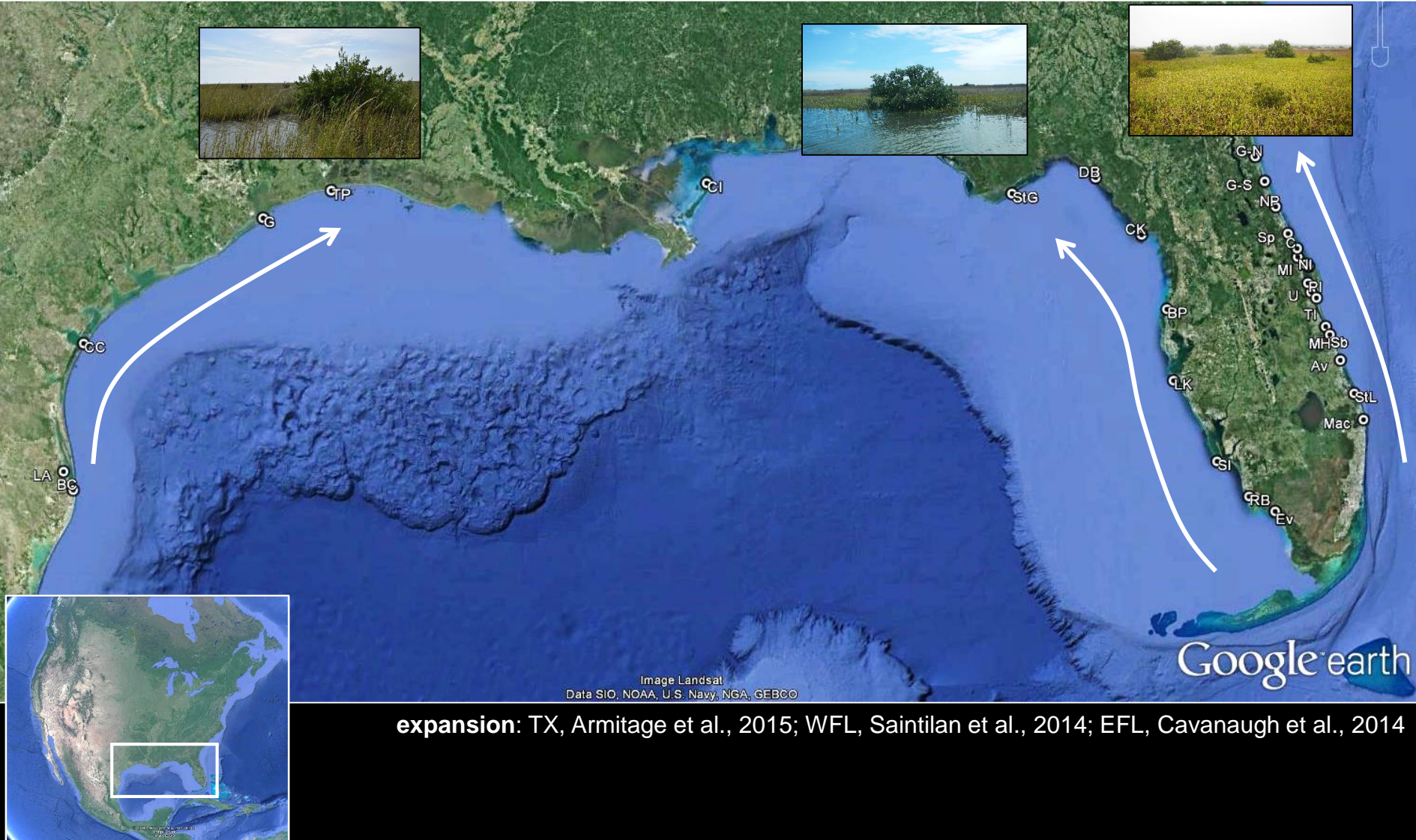


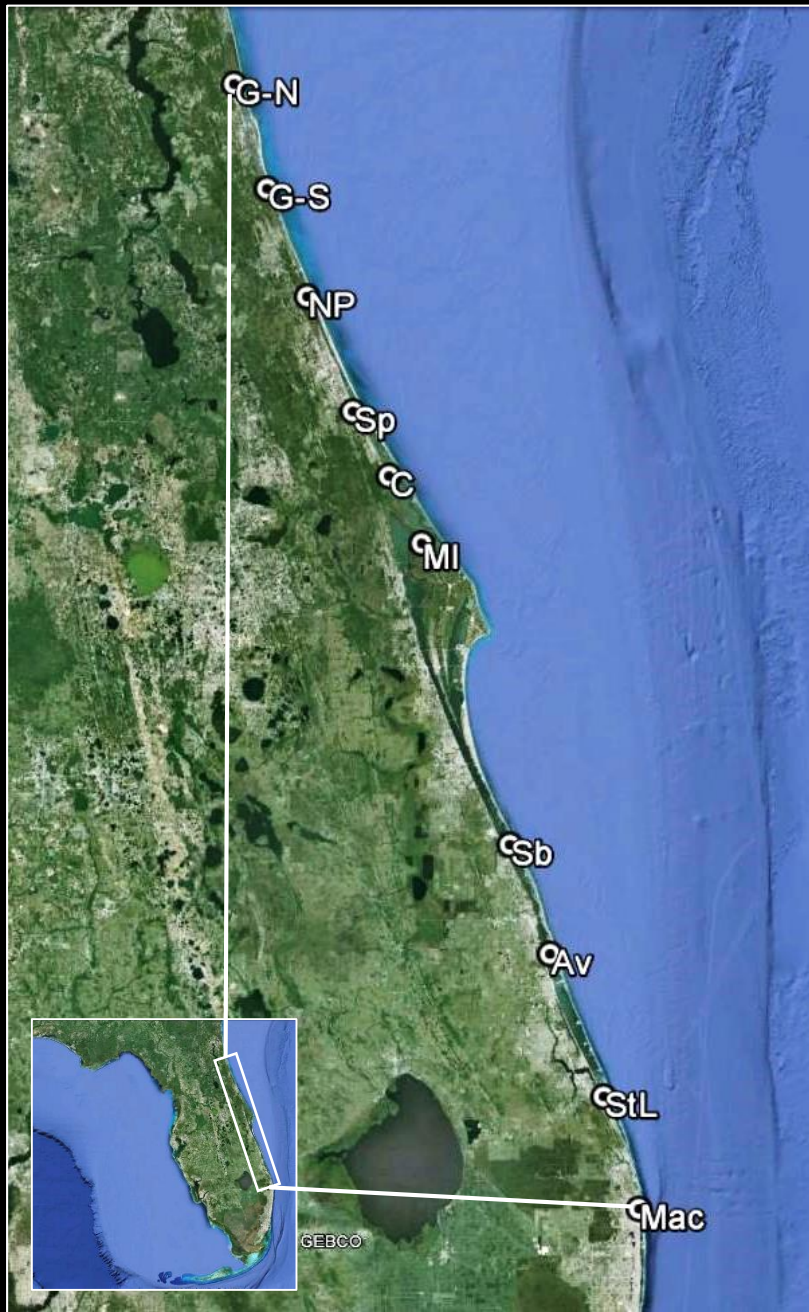
Genetic and morphological variation of East Florida black mangrove (*Avicennia germinans*)



John Paul Kennedy & Ilka C. Feller
contact: kennedyjp@si.edu
poster: 108

Collection sites: Texas (n = 5), West Florida (n = 8), East Florida (n = 16)





30 °N

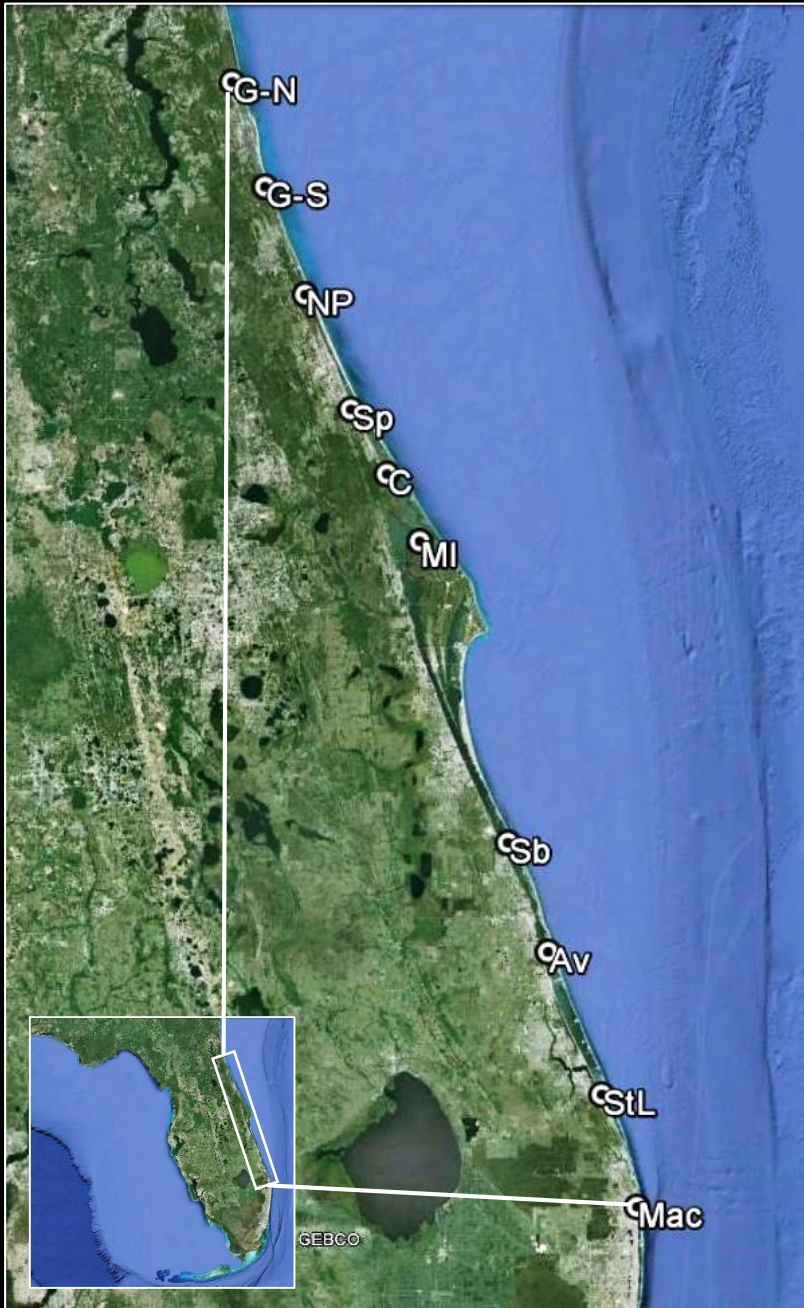


temperature gradient



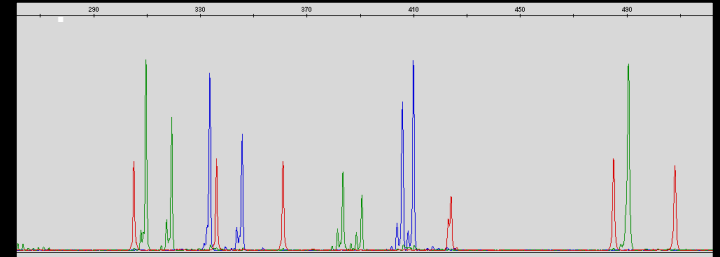
27 °N





microsatellite molecular markers

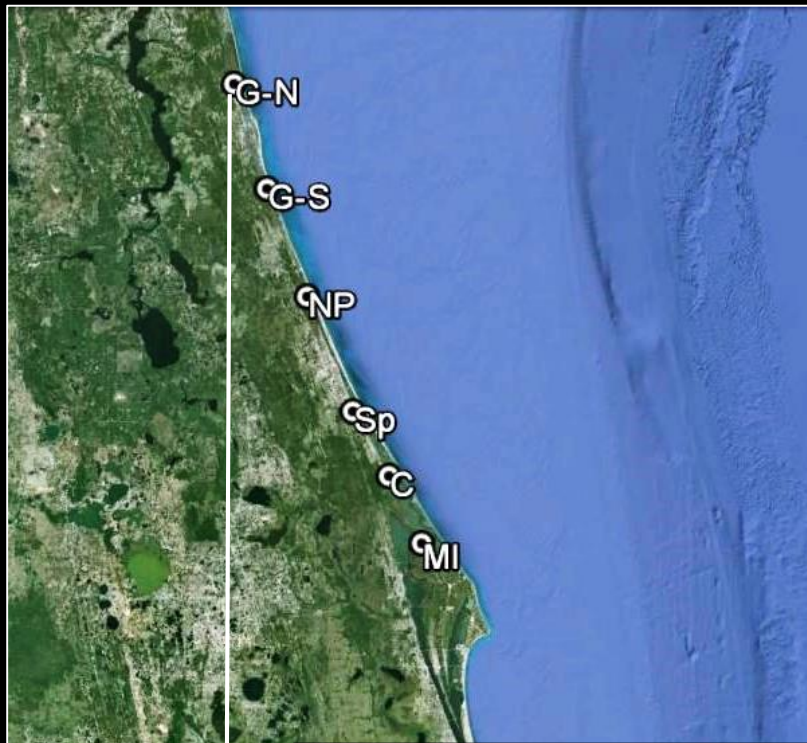
.....CAGCAG.....
CAGCAGCAGCAG.....



functional leaf traits associated with cold stress

- area (cm²)
- length / width (mm)
- L:W
- specific leaf area (SLA; cm²g⁻¹)





Genetic diversity



Differentiation

Limited gene flow

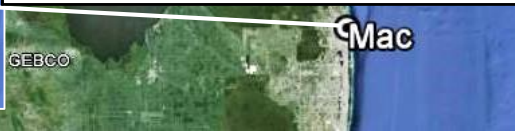
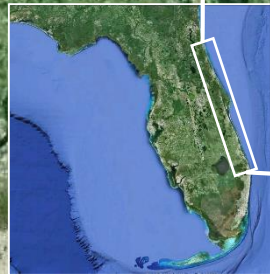
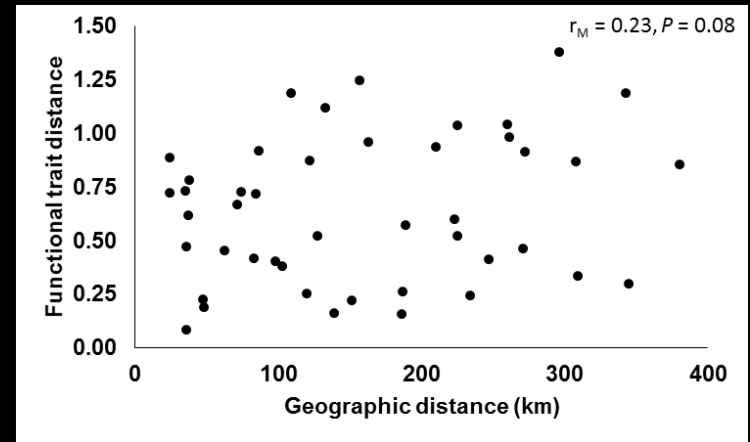
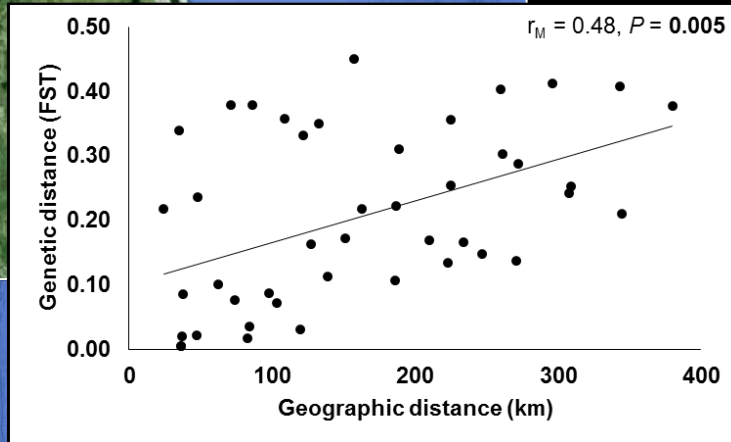


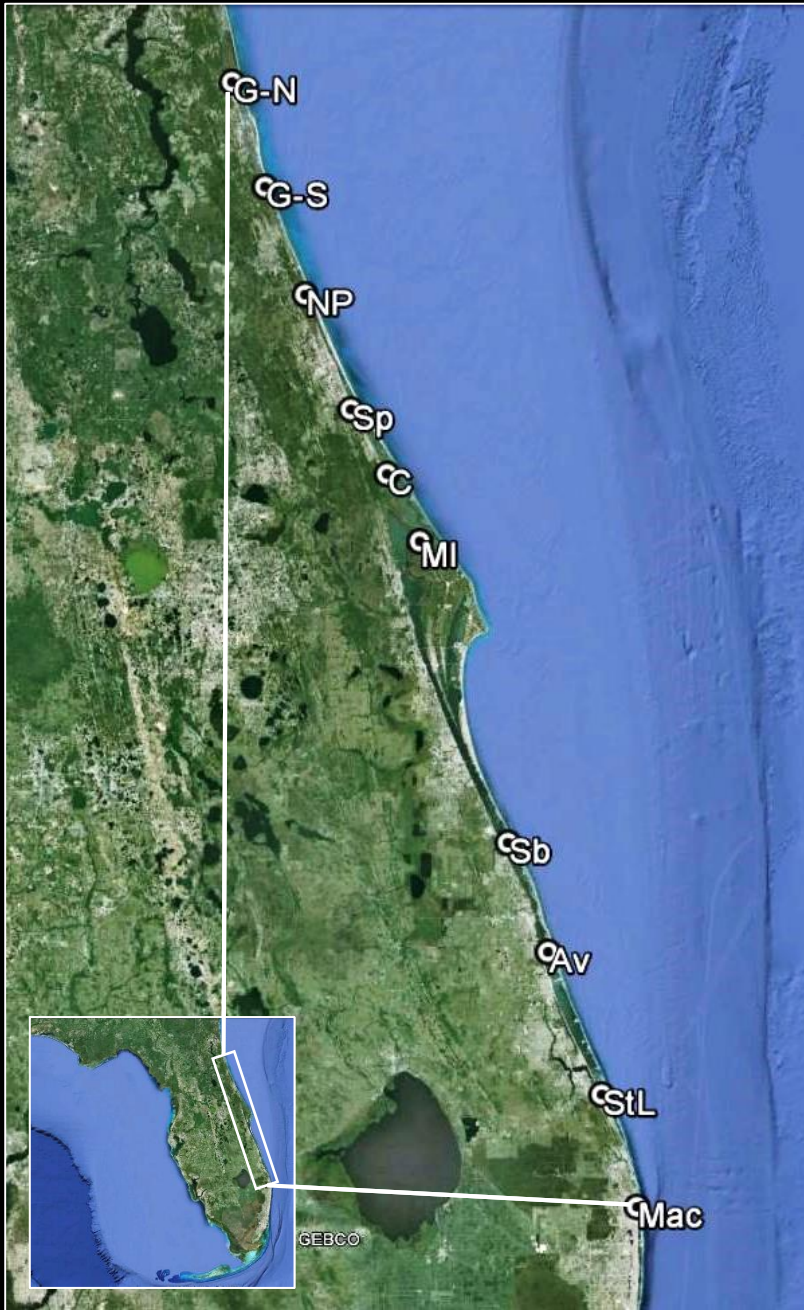
Leaf area



SLA

Local heterogeneity





Genetic diversity

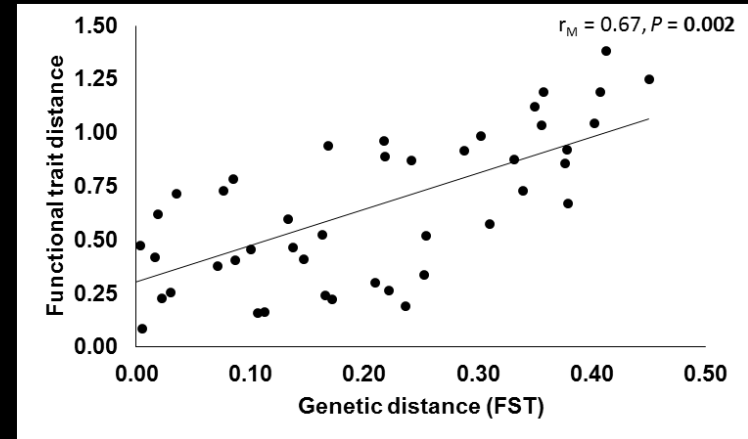
Differentiation

Limited gene flow

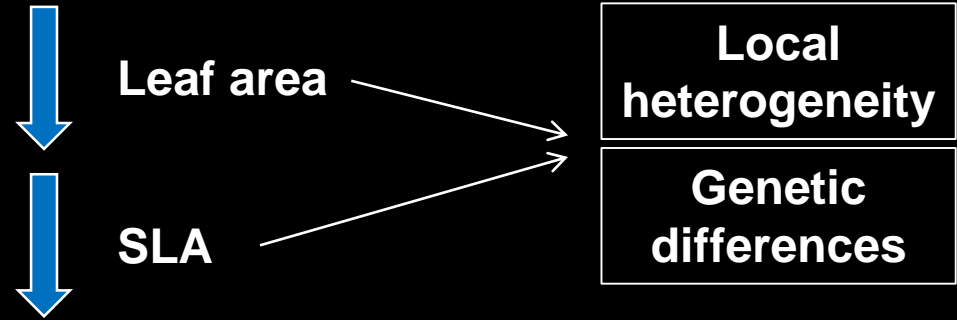
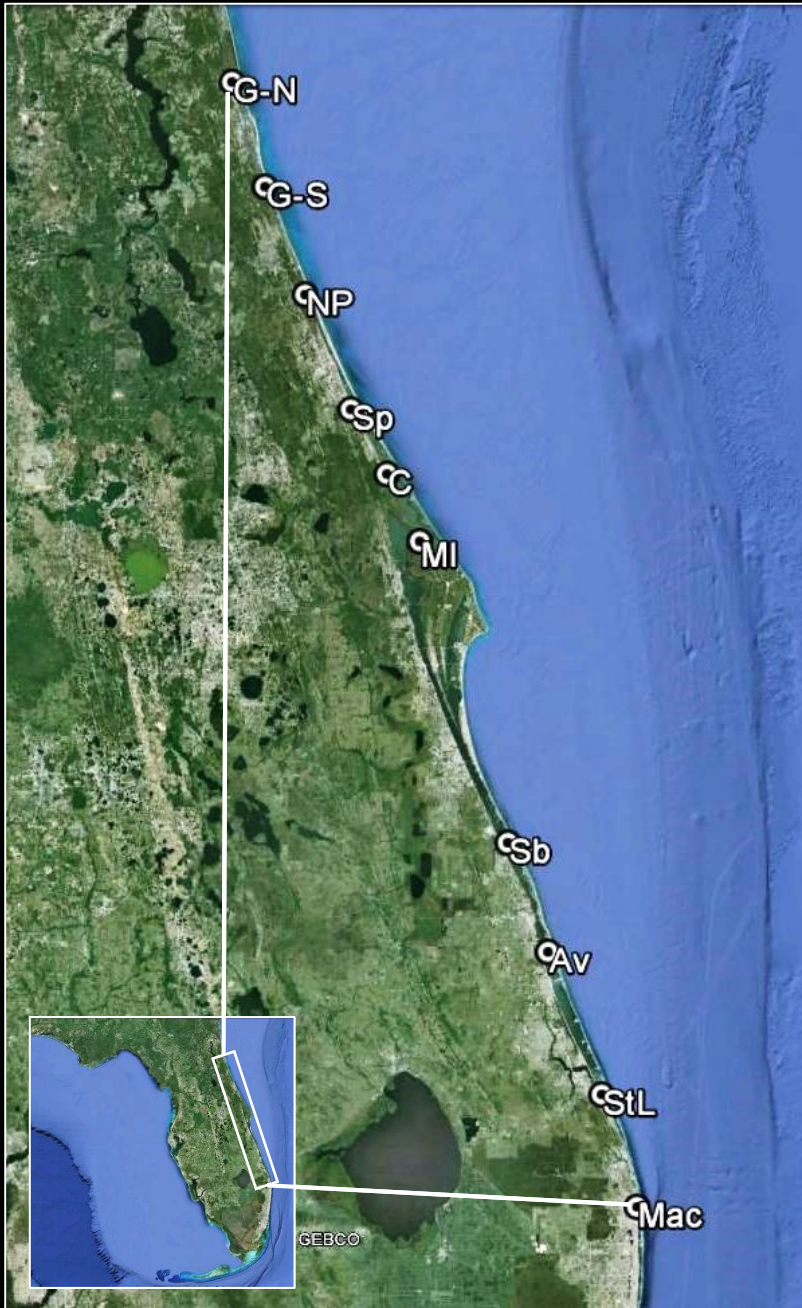
Leaf area

Local heterogeneity

SLA



Genetic differences influence morphology

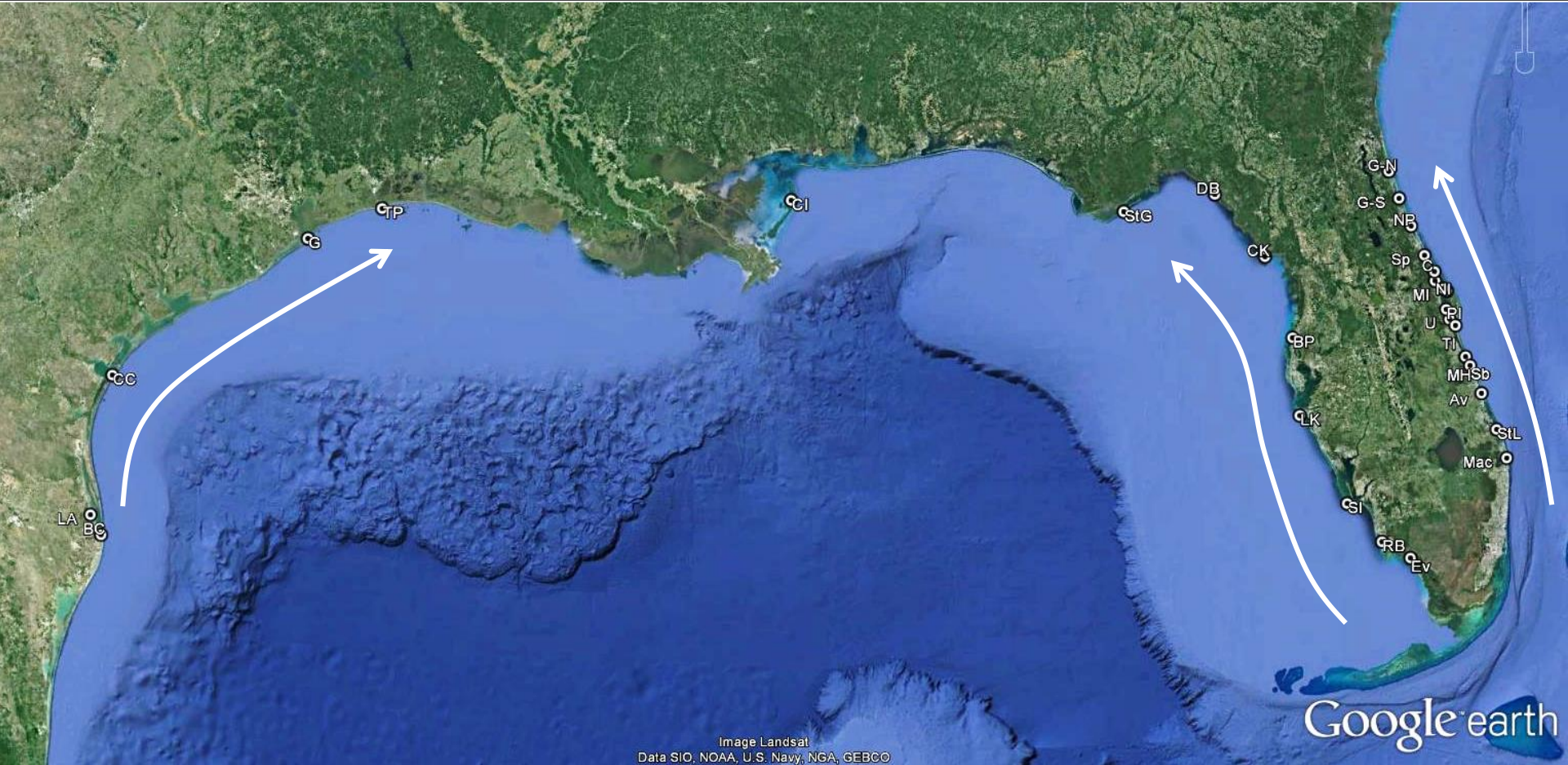


Open questions:

1. Empirical approaches to test for local adaptation?
2. Other environmental factors to consider?
3. Environmental factors differ along other expansion axes?



contact: kennedyjp@si.edu
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