

Molecular Studies of *Aedes atlanticus* and *Aedes tormentor* - Charlie Sither

- 1) Adult females are almost indistinguishable
- 2) Larvae are easily distinguishable
- 3) Viruses isolated
 - a) WNV
 - b) KEY
 - c) EEE
- 4) Morphological characteristics (Bruce Harrison)
 - a) Brown scales on occiput of *Oc tormentor* do not extend to eyes
 - b) Brown scales on occiput of *Oc atlanticus* do extend to eyes
- 5) Molecular study
 - a) Methods
 - i) Extracted gDNA
 - ii) PCR amplification
 - iii) Gene target area - ITS2
 - iv) TOPO-TA cloning
 - b) Used reared specimens to determine if molecular identification was possible
 - c) Sequenced and analyzed
 - i) Differences in number of base pairs
 - ii) Heterogeneity exists
 - iii) 94% similarity
 - d) Tested results on unknowns - 100% match with morphological IDs
- 6) Second strategy under consideration - restriction enzyme digest
- 7) Also looking to sequence across a broader geographic range