*Wing geometry of An. darlingi across latitudes of Brazil and under three different temperature treatments*

1. Field collected mosquitos
   1. Linearly regress centroid size (18 landmarks) and wing length to confirm correlation
   2. Cline- Make graph showing CS size by site over increasing latitudes
   3. Question: Are the effects of biome or latitude stronger on the wing shape/length/CS of field collected females? Is there a cline?
   4. Shape
      1. Independent variables: Biome, Latitude/Locality, Eco-region, % deforestation
      2. Dependent variables: Procrustes coordinates by 18 landmarks
      3. Method: MANOVA
   5. Wing length
      1. Independent variables: Biome, Latitude/Locality, Eco-region, % deforestation
      2. Dependent variables: Wing length (mm)
      3. Method: Factorial ANOVA
   6. Centroid Size
      1. Independent variables: Biome, Latitude/Locality, Eco-region, % deforestation
      2. Dependent variables: Centroid size calculated by 18 landmarks
      3. Method: Get CS values from CLIC MOG  
         Factorial ANOVA

1. Lab reared mosquitos
   1. Linearly regress centroid size (18 landmarks) and wing length to confirm correlation
      1. Overall
      2. By groupings
   2. Cline- Make graph showing CS size by site over increasing latitudes
      1. Overall
      2. By groupings
   3. Question: How does biome, latitude, and rearing temperature affect the wing length and shape of lab reared males and females?
   4. Shape
      1. Independent variables: Biome, Latitude/Locality, Temperature, Eco-region, % deforestation
      2. Dependent variables: Procrustes coordinates by 18 landmarks
      3. Method: MANOVA
   5. Wing length
      1. Independent variables: Biome, Latitude/Locality, Temperature, Eco-region, % deforestation
      2. Dependent variables: Wing length (mm)
      3. Method: Factorial ANOVA
   6. Centroid Size
      1. Independent variables: Biome, Latitude/Locality, Temperature, Eco-region, % deforestation
      2. Dependent variables: Centroid size calculated by 18 landmarks
      3. Method: Get CS values from CLIC MOG  
         Factorial ANOVA
2. Heritability of wing shape under changing temperatures
   1. Question: How heritable is the wing shape of field collected females and male/female offspring under rising temperatures?