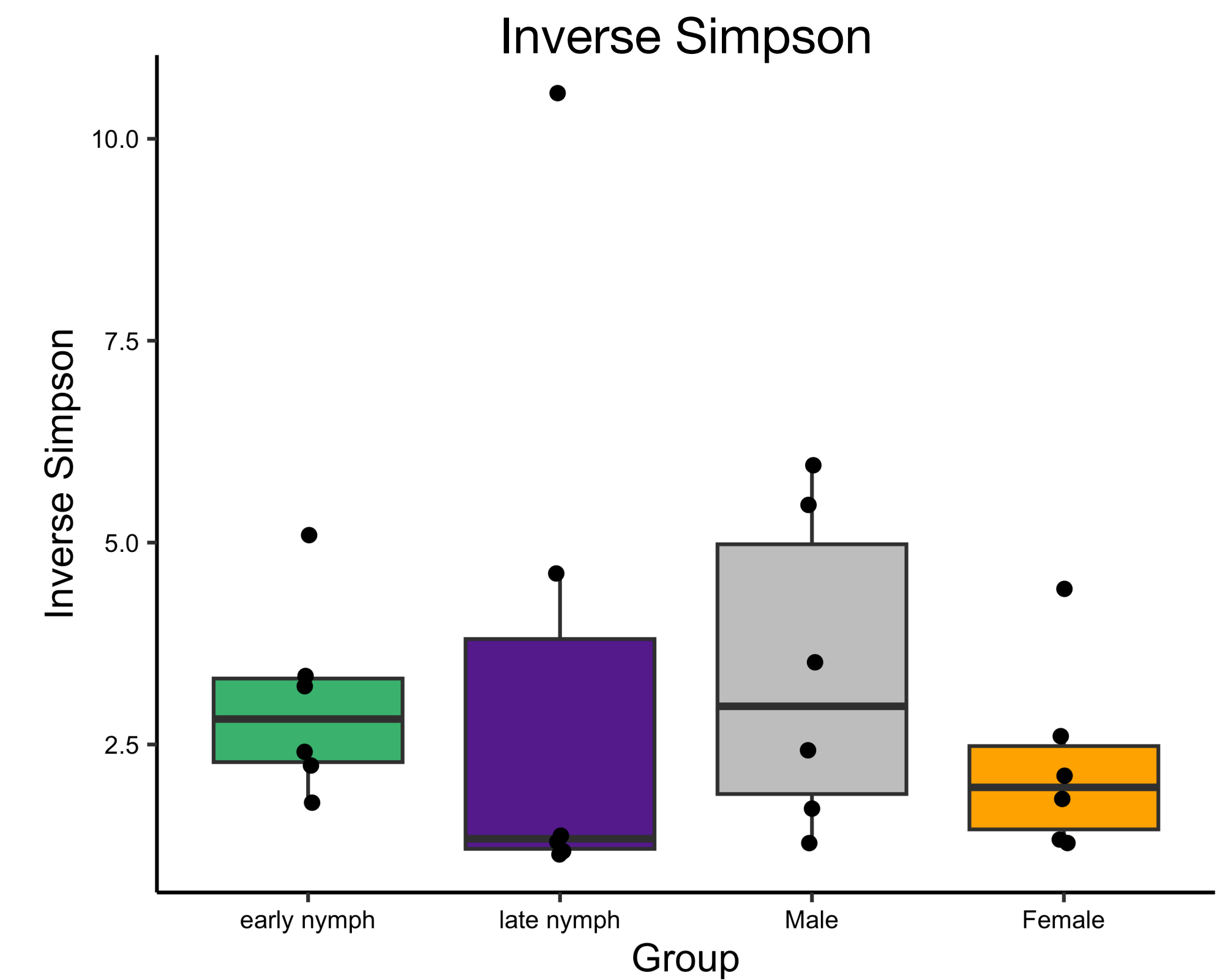
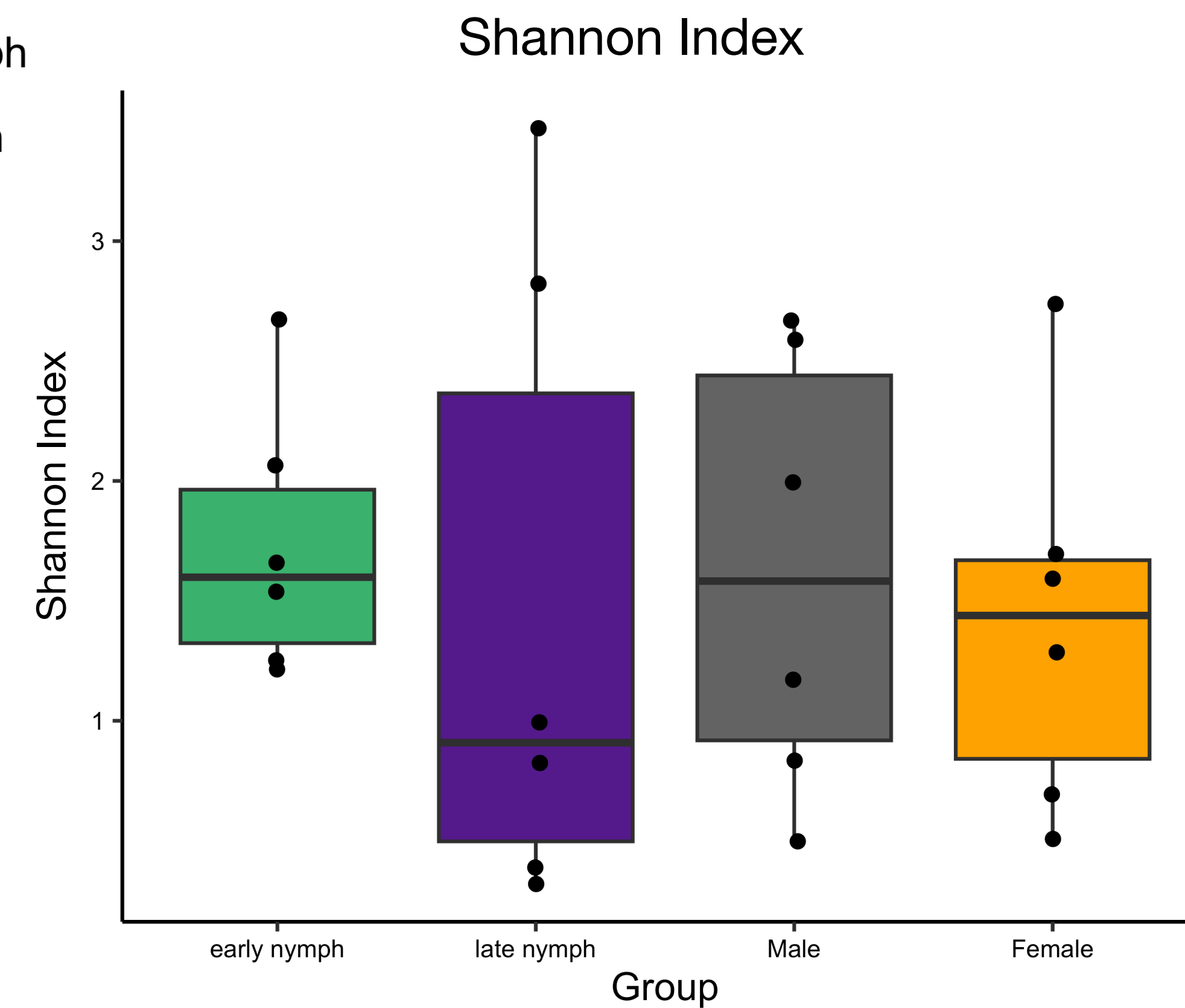
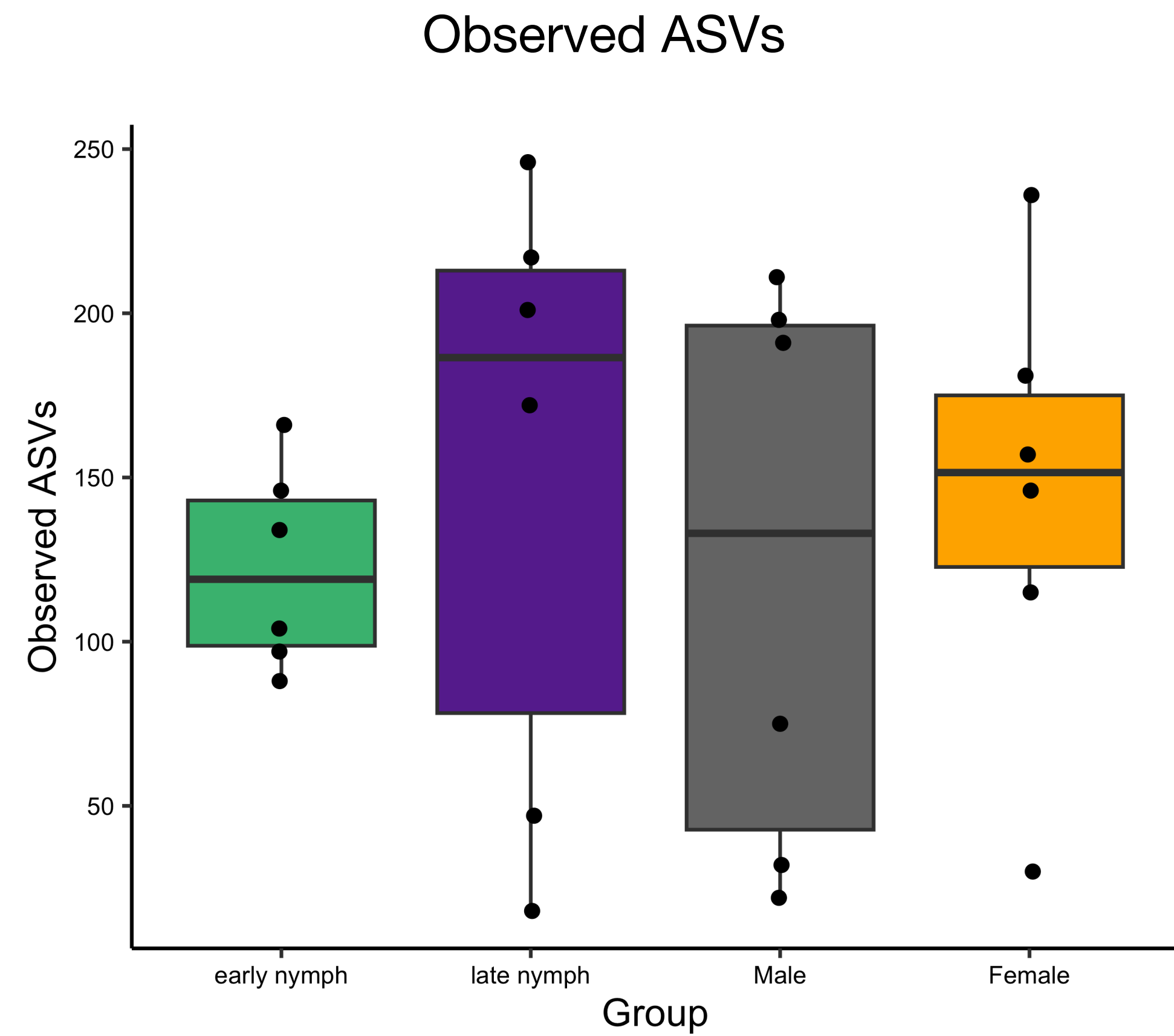


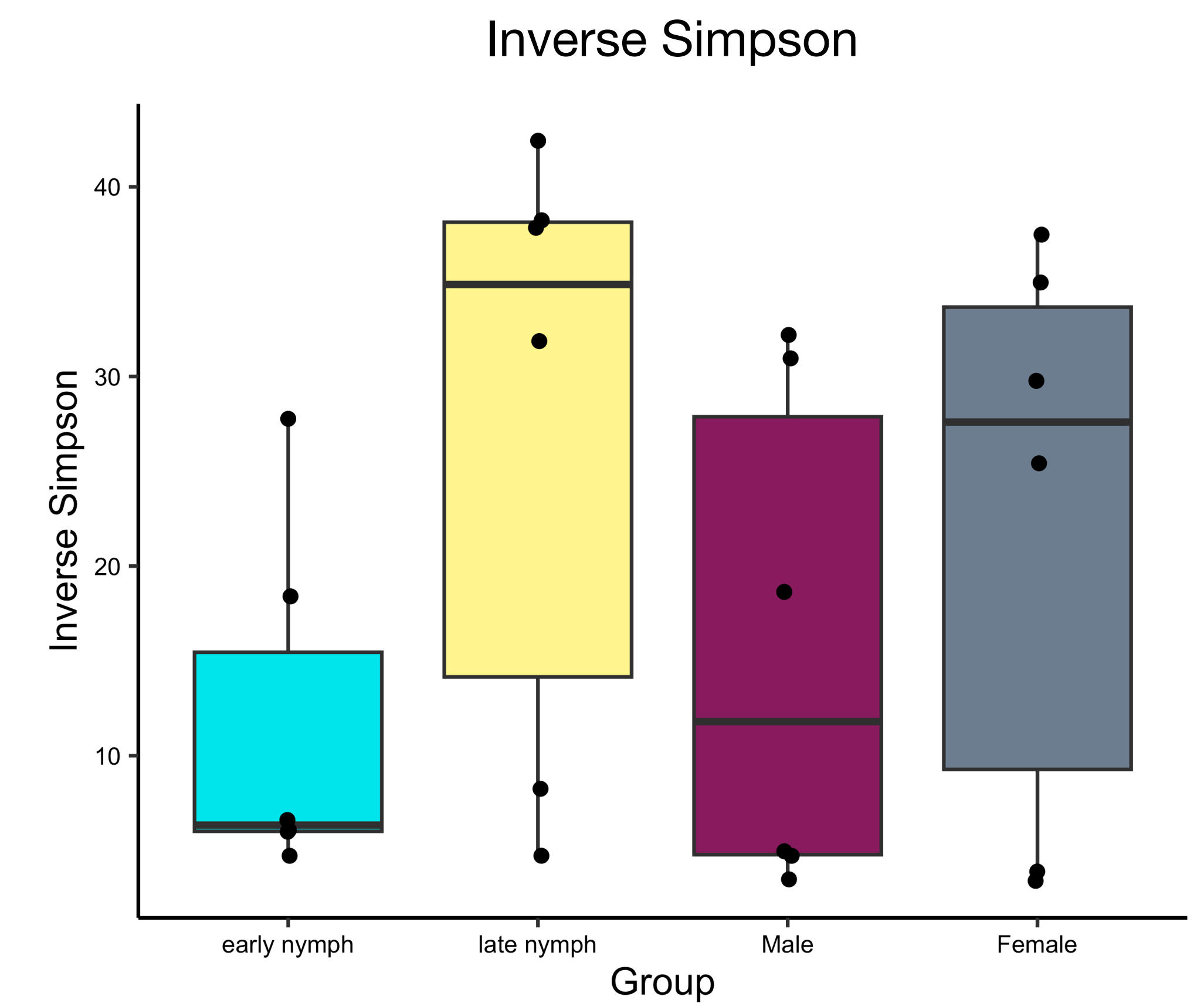
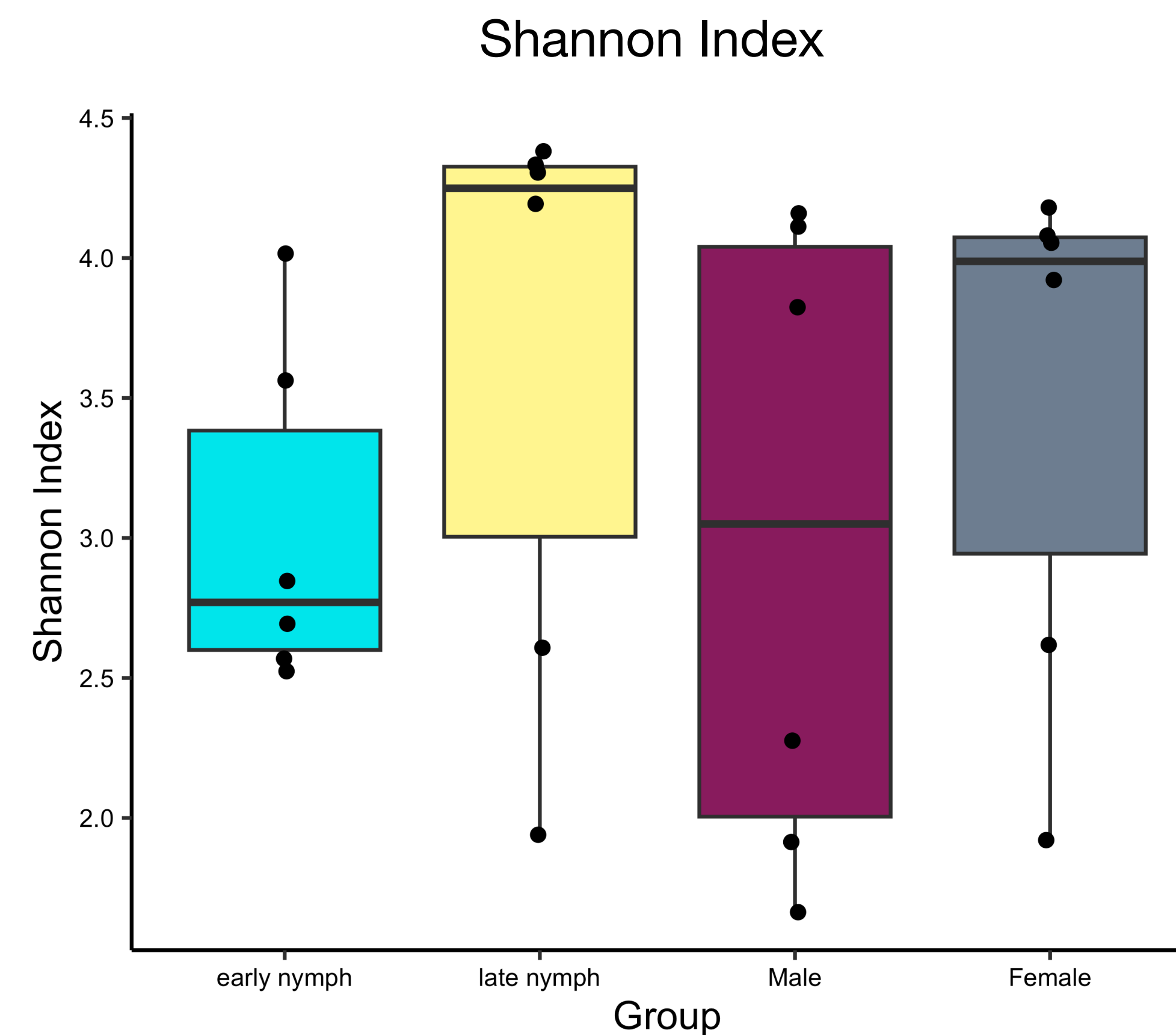
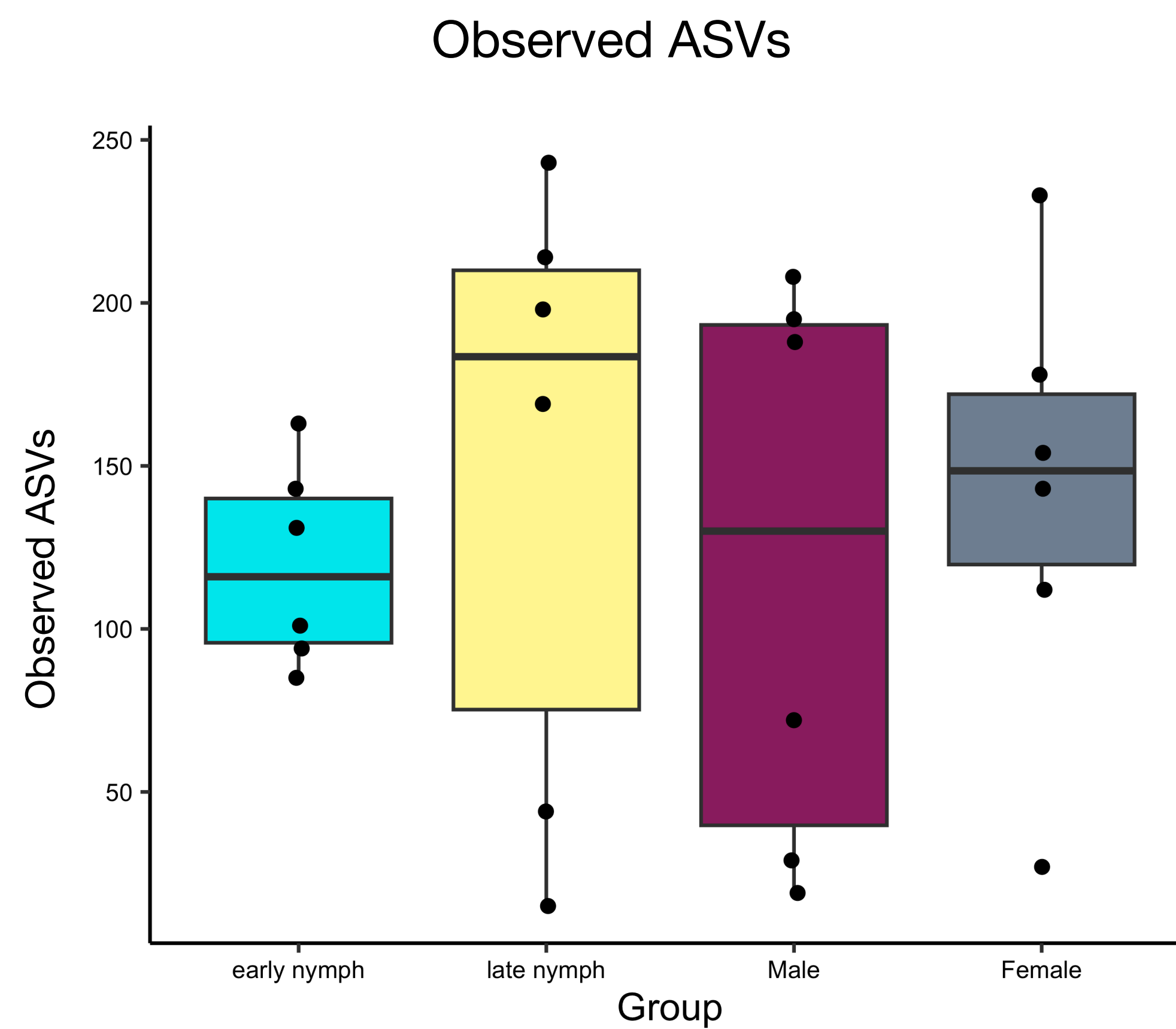
Supplementary 1A

S. longipalpa **with** *Blattabacterium* and *Wolbachia* Alpha Diversity (ASV Level)



Supplementary 1B

S. longipalpa **without** *Blattabacterium* and *Wolbachia* Alpha Diversity

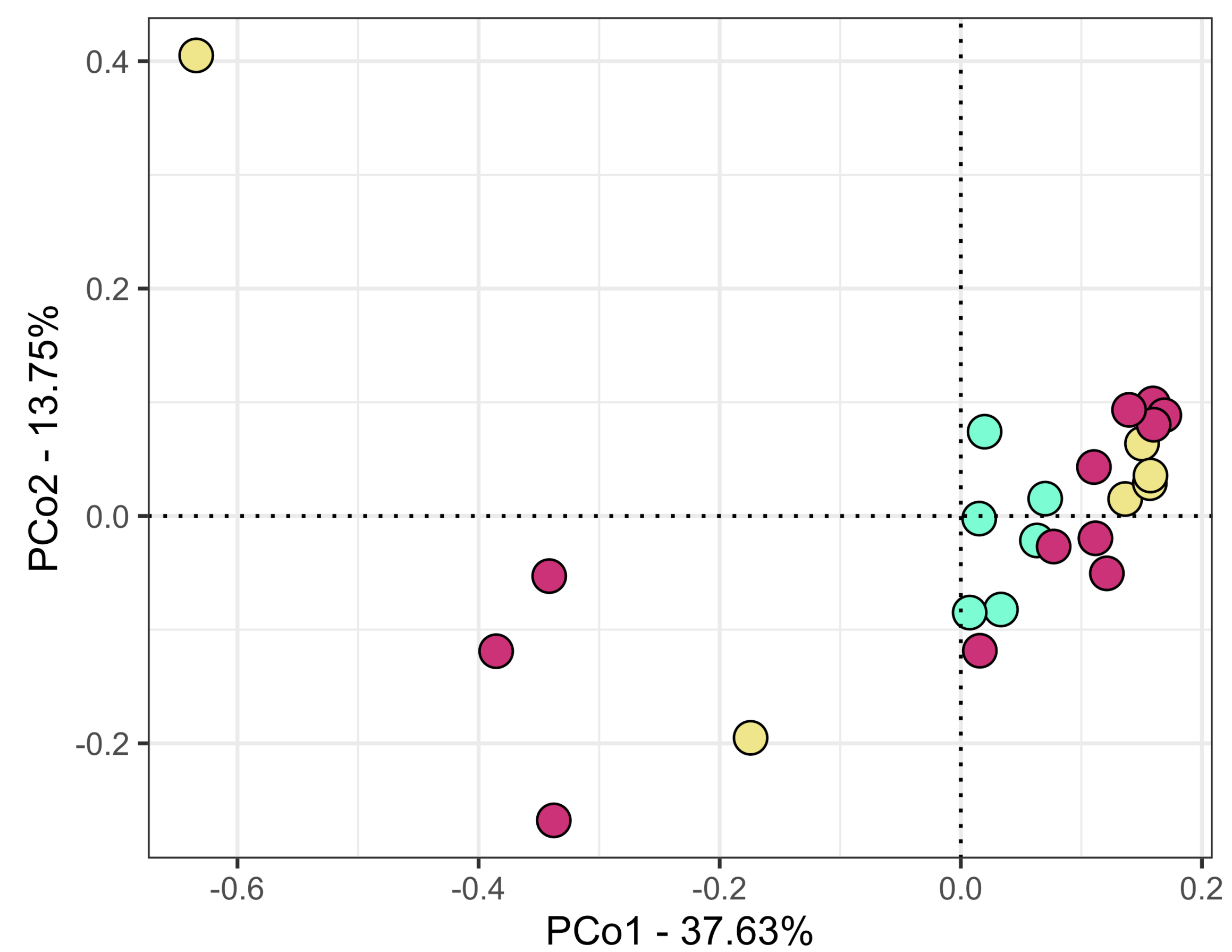


Bray-Curtis Distances **without** endosymbionts (genus level)

- early nymph
- late nymph
- adult

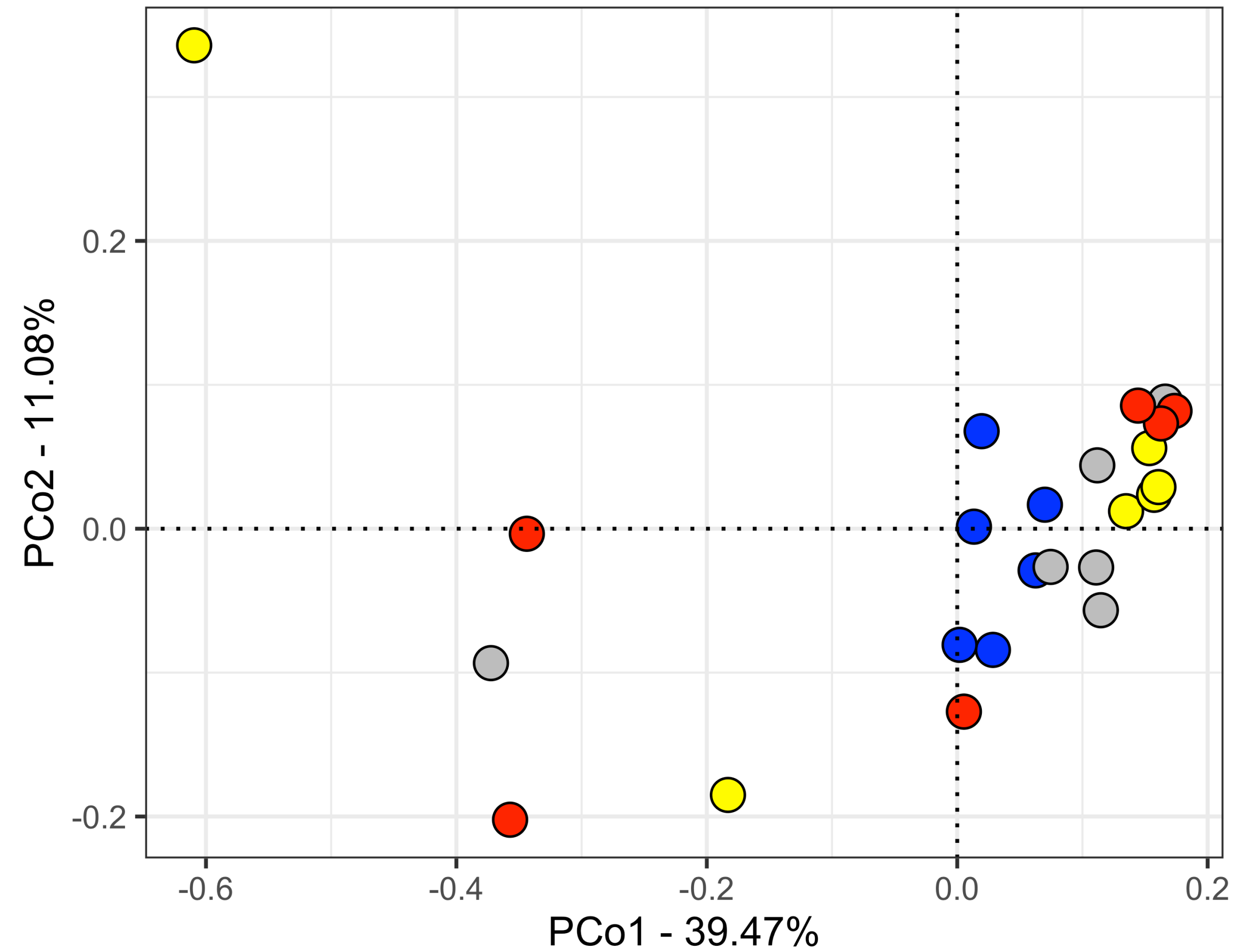
- early nymph
- late nymph
- Male
- Female

Bray-Curtis Distances (unweighted) *S. longipalpa*



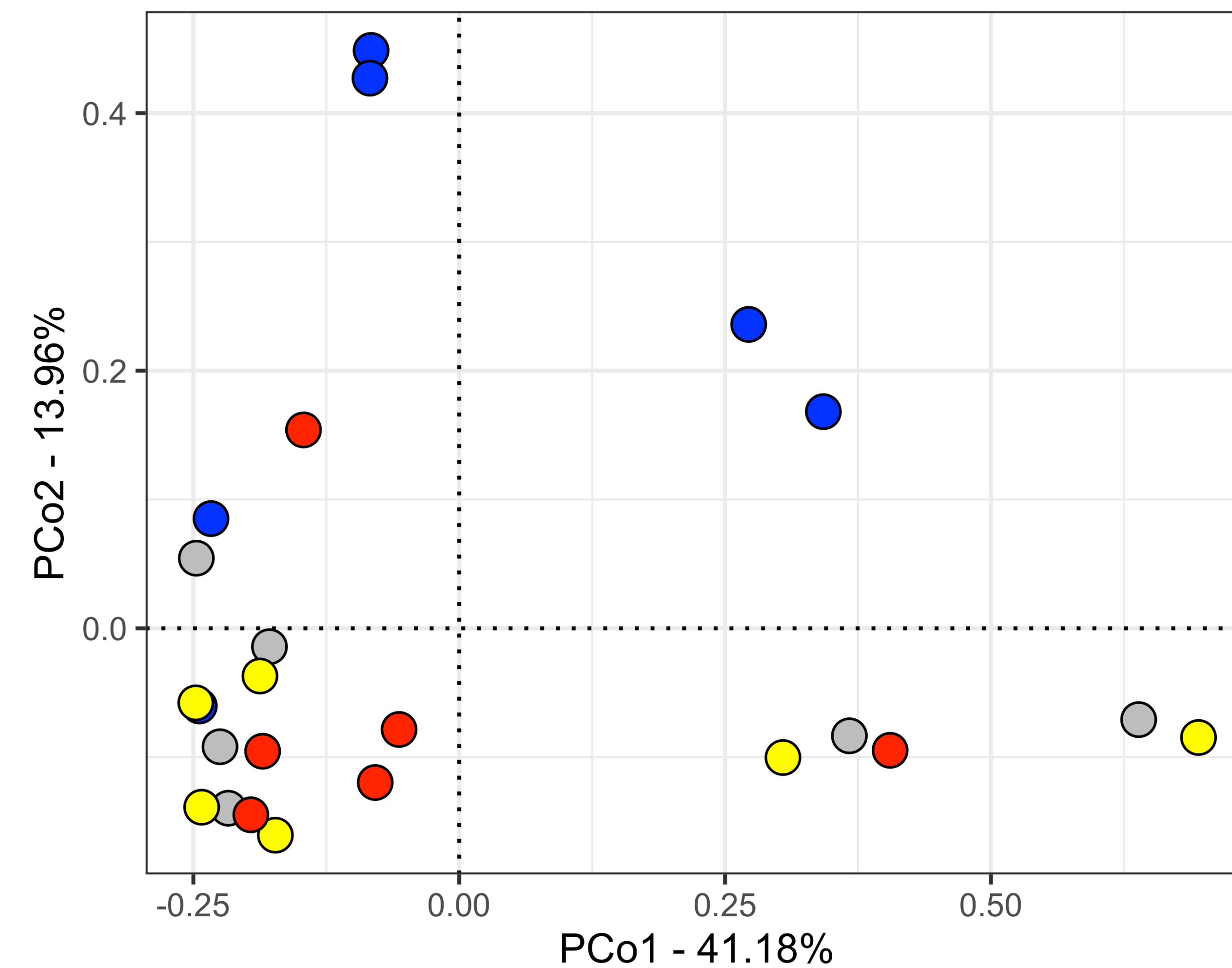
PERMANOVA: R2=0.09; F-statistic=1.05; p-value=0.35

Bray-Curtis Distances (unweighted) *S. longipalpa*



PERMANOVA: R2=0.08; F-statistic=0.65; p-value=0.89

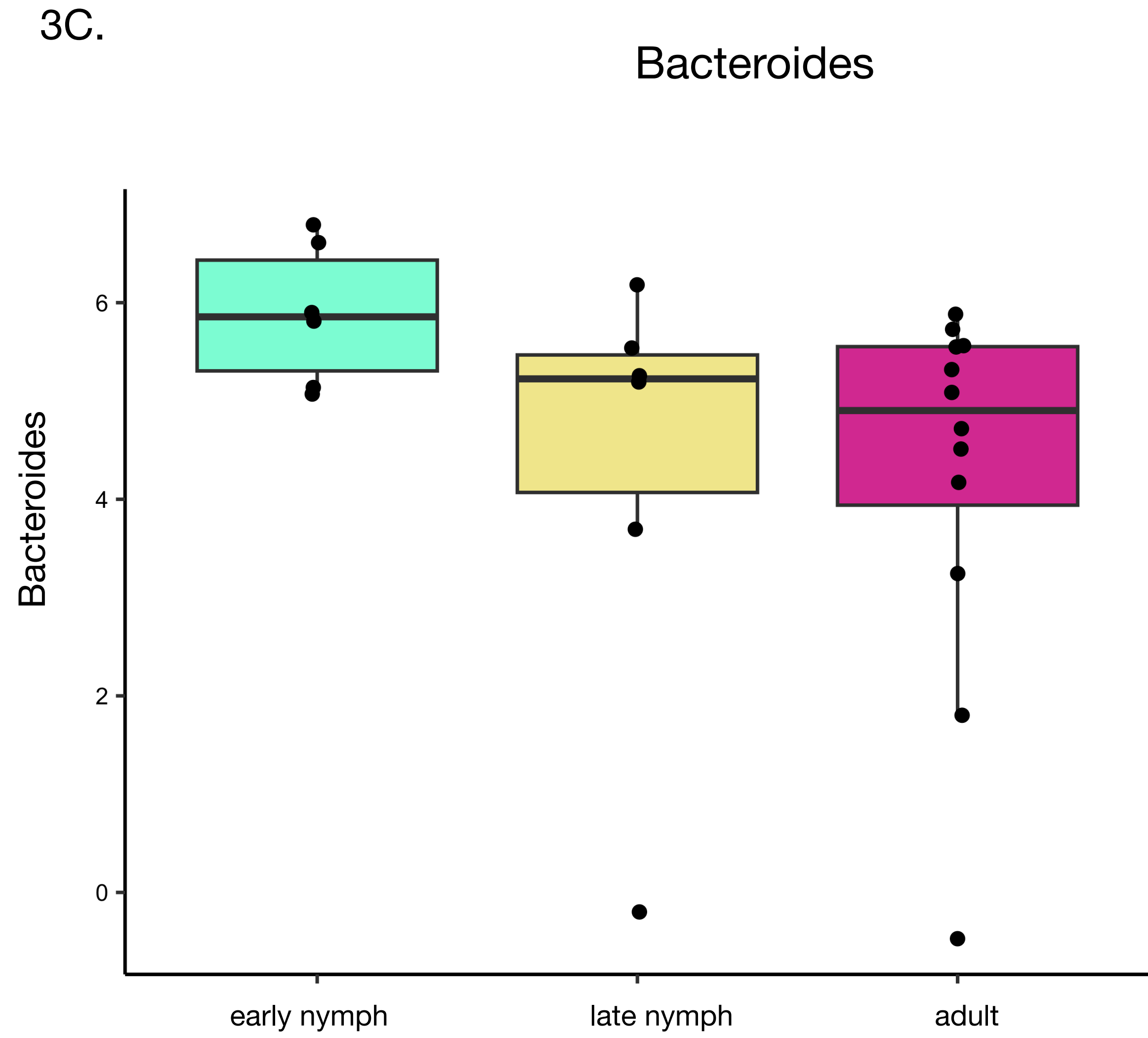
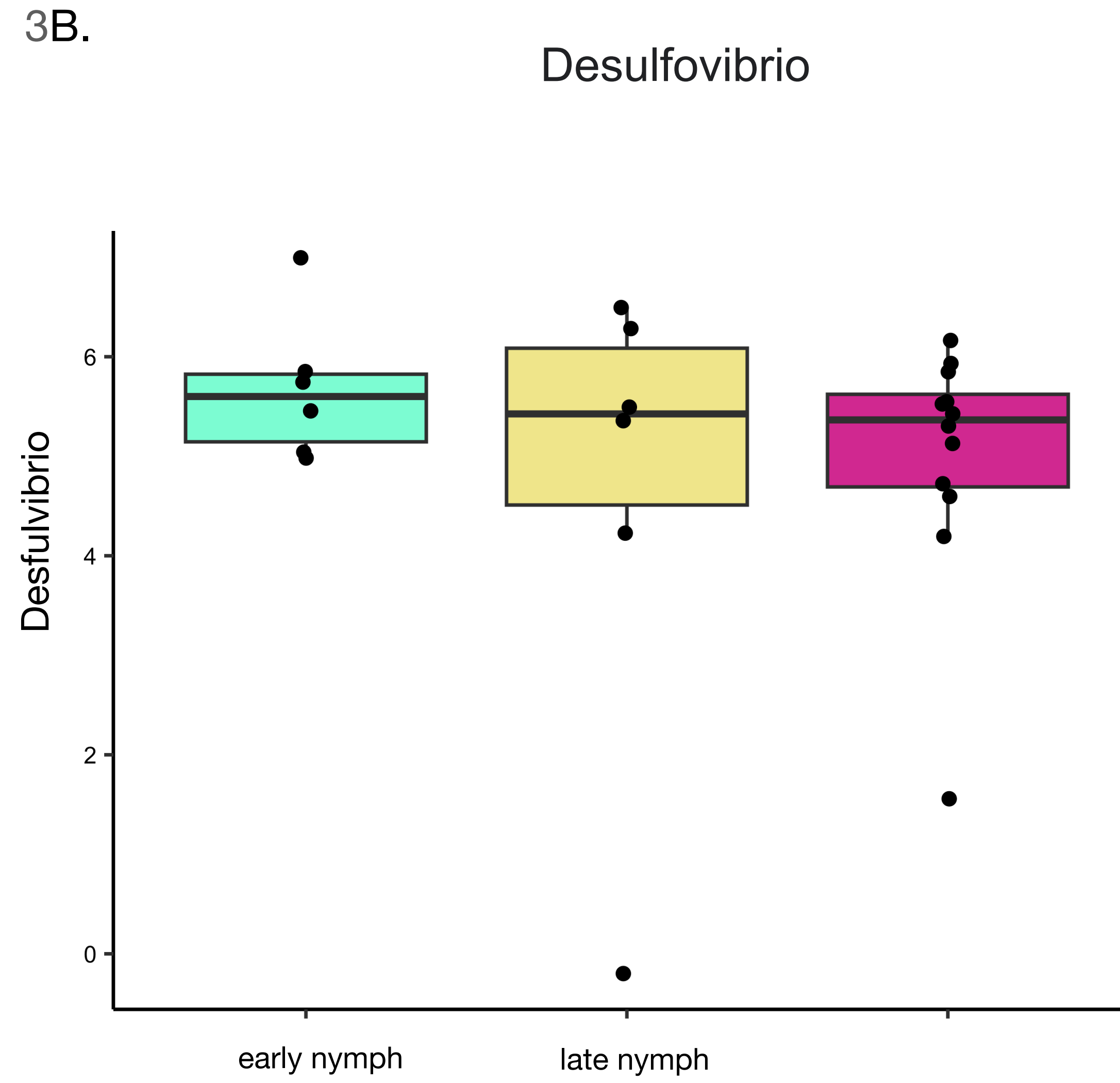
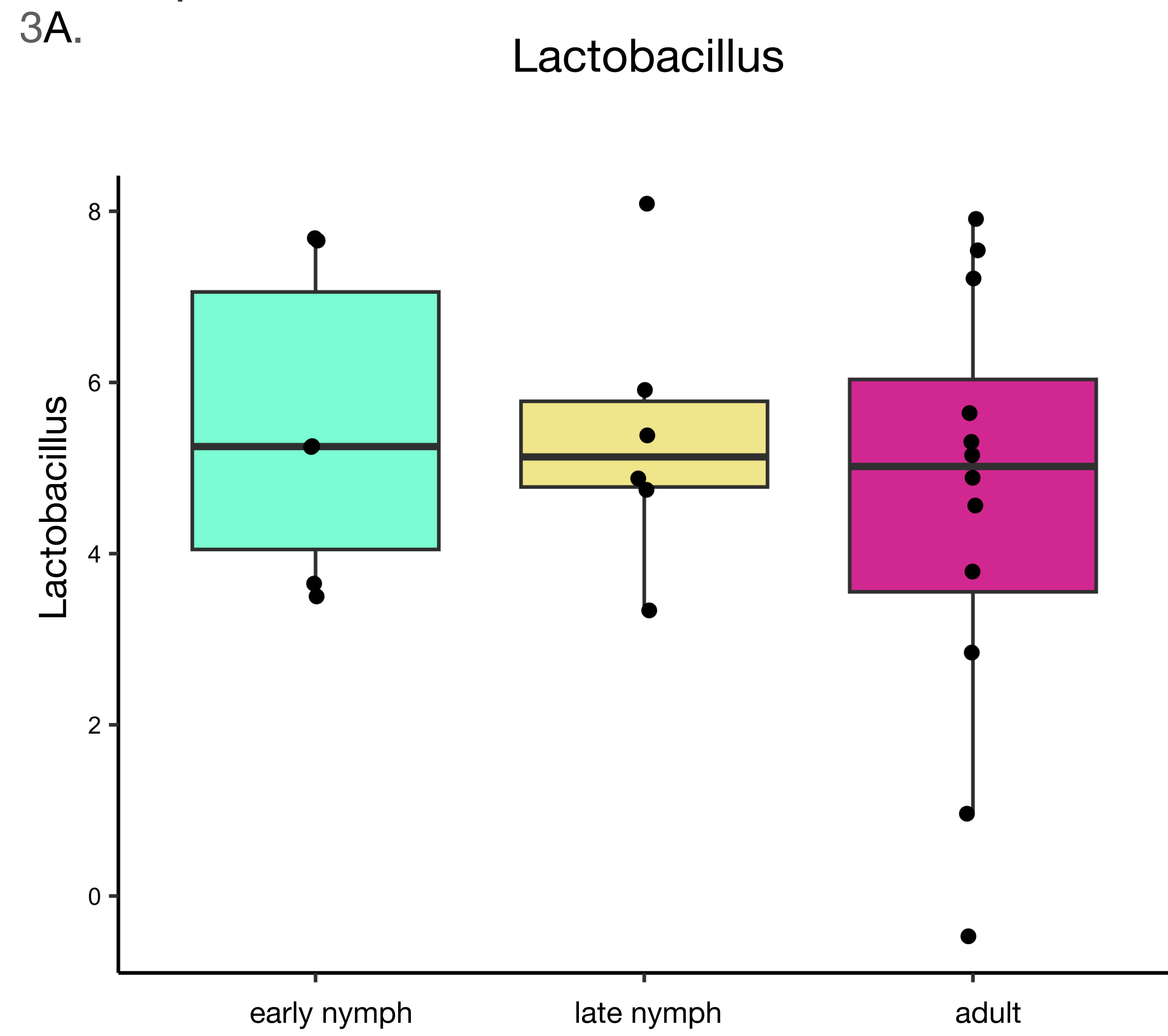
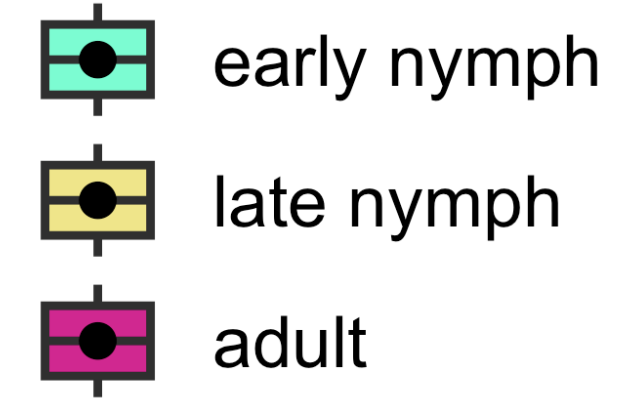
Bray-Curtis Distances (weighted) *S. longipalpa*



PERMANOVA: R2=0.14; F-statistic=1.15; p-value=0.32

Supplementary 3A, 3B, 3C

Differential Abundance Analysis of *S. longipalpa* by stages (early nymph, late nymph, adult)
(Boxplots illustrating the centered-log ratio transformation of abundances)



Supplementary 4A-4F

Differential Abundance Analysis of *S. longipalpa* Males and Females
(Boxplots illustrating the centered-log ratio transformation of abundances)

