



Reference Stream Sampling Status Update

Aquatic Ecology and Quality Assurance
November 6, 2019

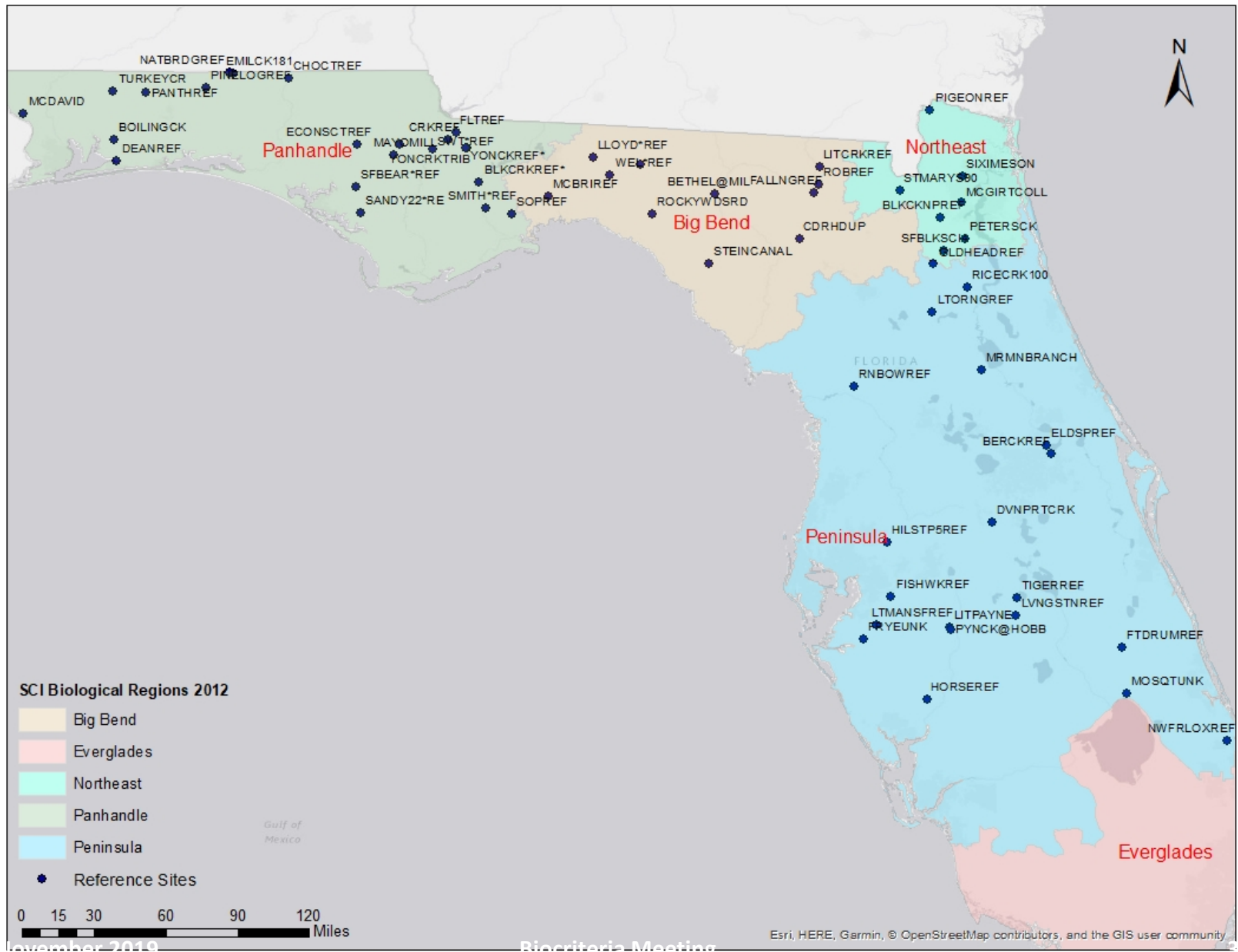


Objectives of Sampling

- Re-evaluate historic reference streams, vet old list and establish a revised list of reference streams
- Document changes in the conditions of historic reference streams
- Use as a baseline for future studies



Statewide Map of Reference Sites

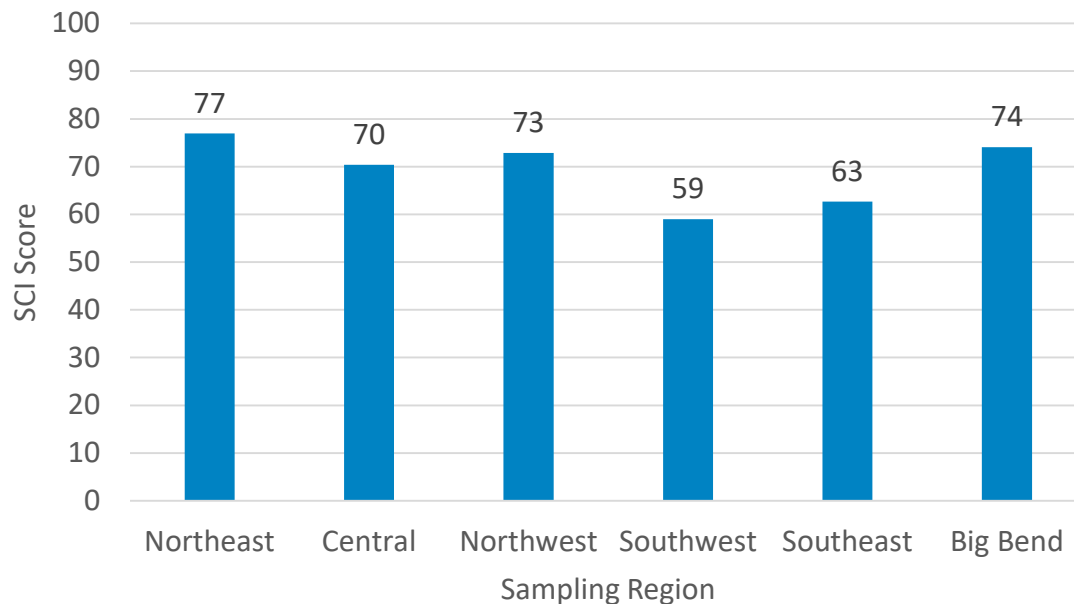




SCI Summary

January 2016 – October 2019

Mean SCI Scores

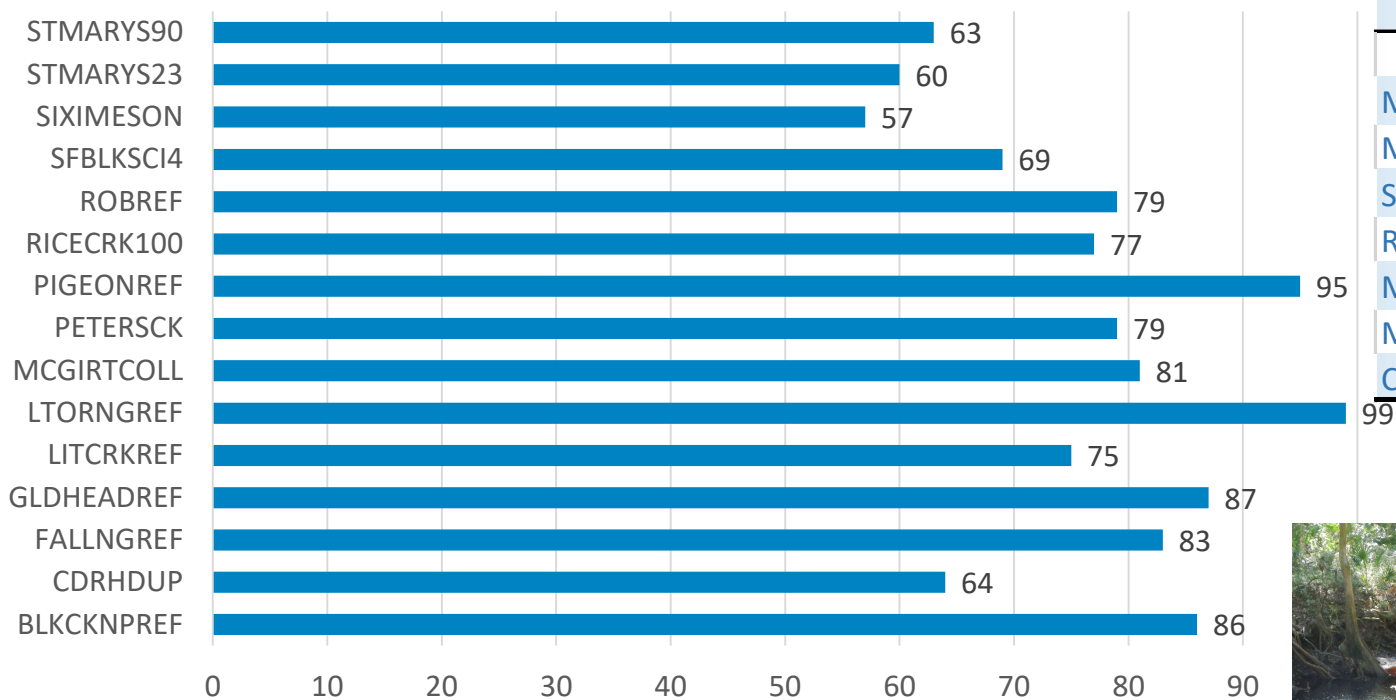


.	Northeast	Central	Northwest	Southwest	Southeast	Big Bend
Mean	77	70	73	59	63	74
Median	79	71	74	62	63	76
St Deviation	12	15	11	13	6	11
Range	42	58	38	43	11	39
Minimum	57	34	49	39	57	54
Maximum	99	92	87	82	68	93
Count	15	14	25	10	3	23



Northeast SCI Results

Average SCI Score



Northeast	
Mean	77
Median	79
Standard Deviation	12
Range	42
Minimum	57
Maximum	99
Count	15

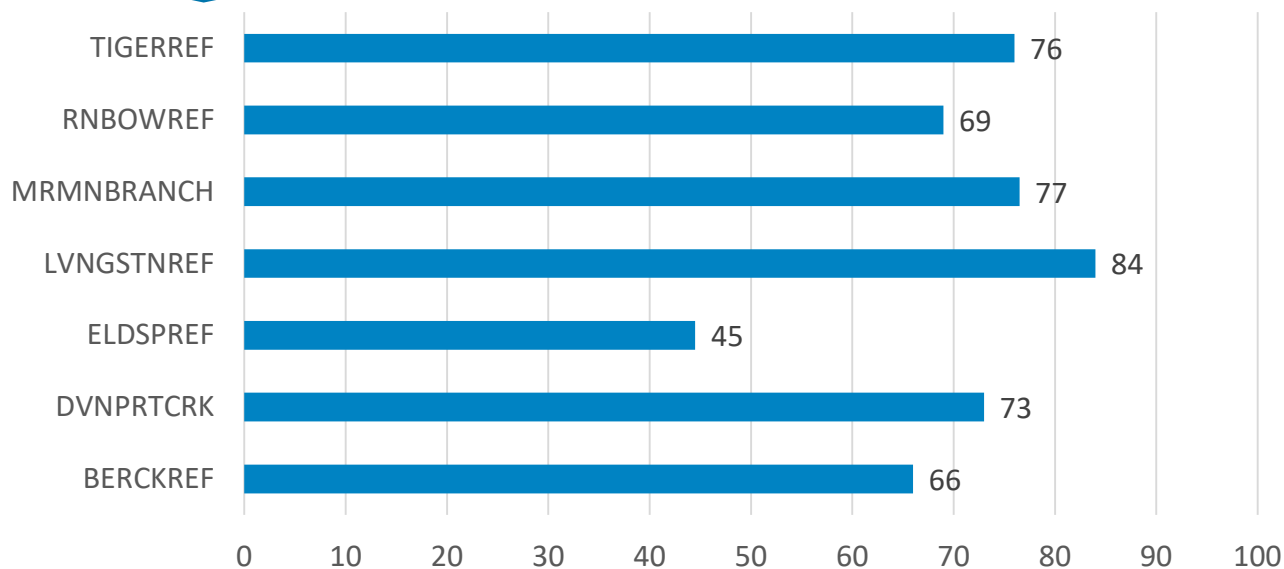
Little Orange Creek



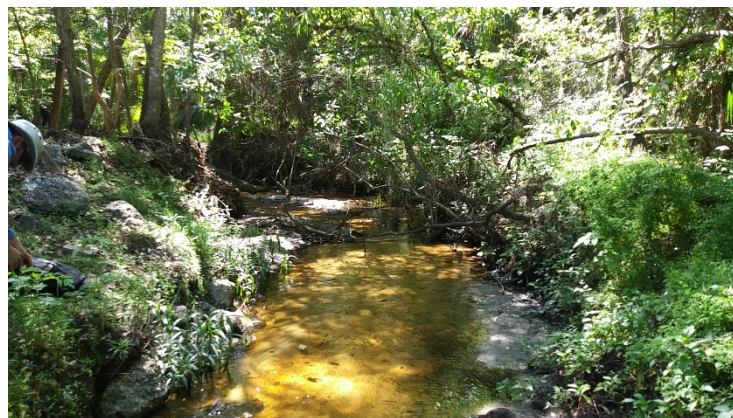


Central SCI Results

Average SCI Score



Central	
Mean	70
Median	73
Standard Deviation	13
Range	40
Minimum	45
Maximum	84
Count	7

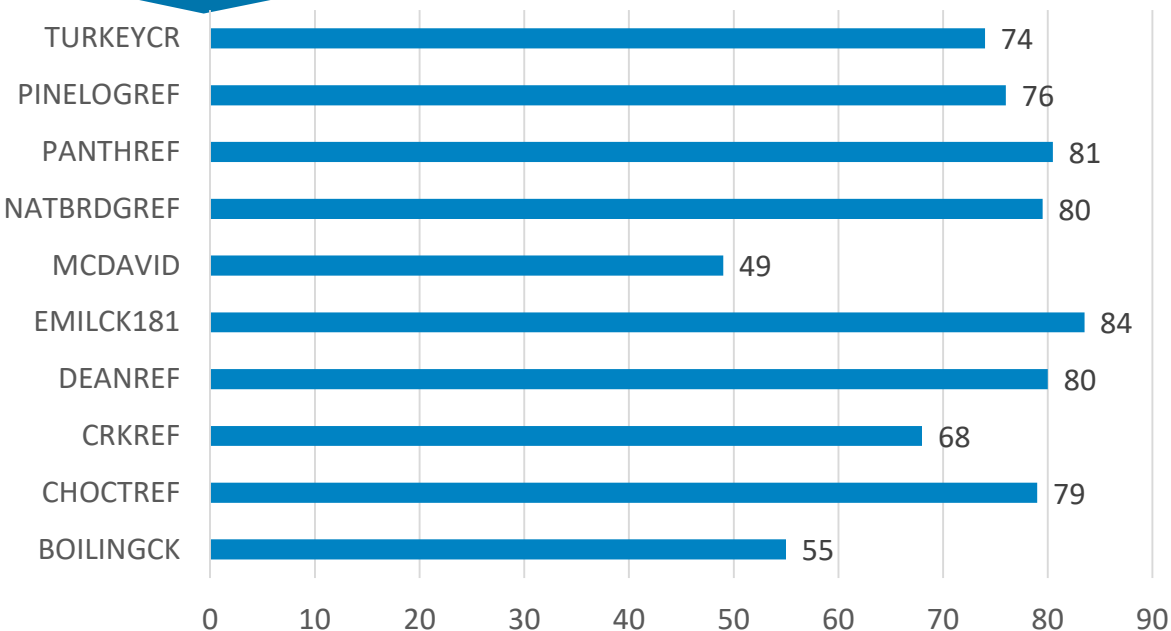


Elder Springs Creek



Northwest SCI Results

Average SCI Score



Northwest	
Mean	72
Median	78
Standard Deviation	12
Range	35
Minimum	49
Maximum	84
Count	10

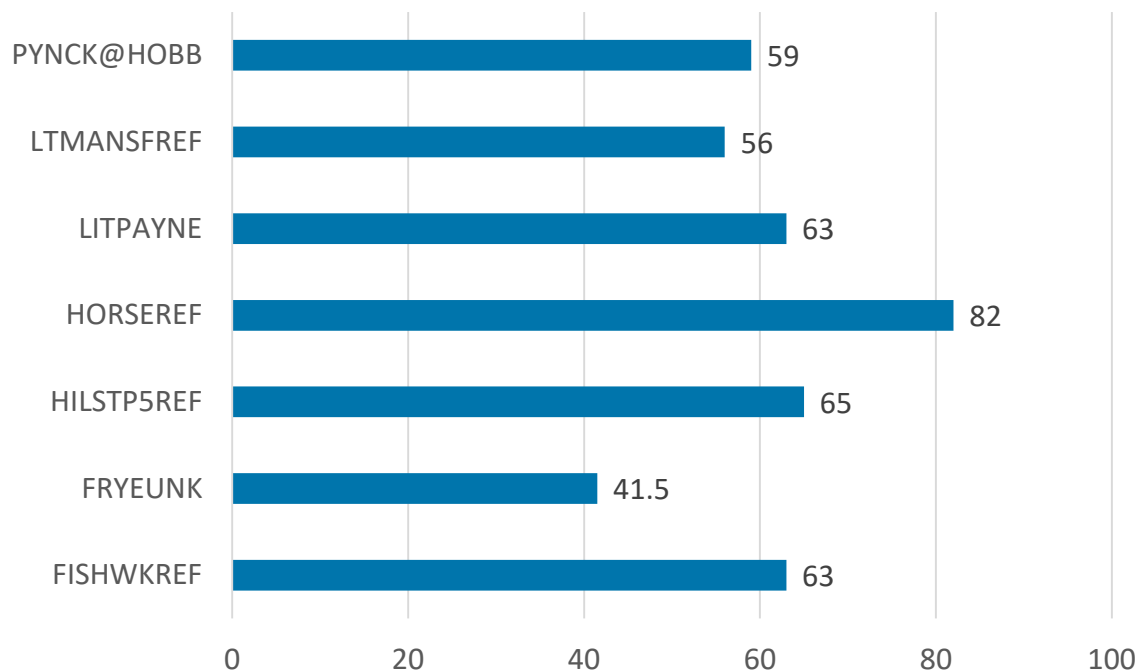


Dean Creek



Southwest SCI Results

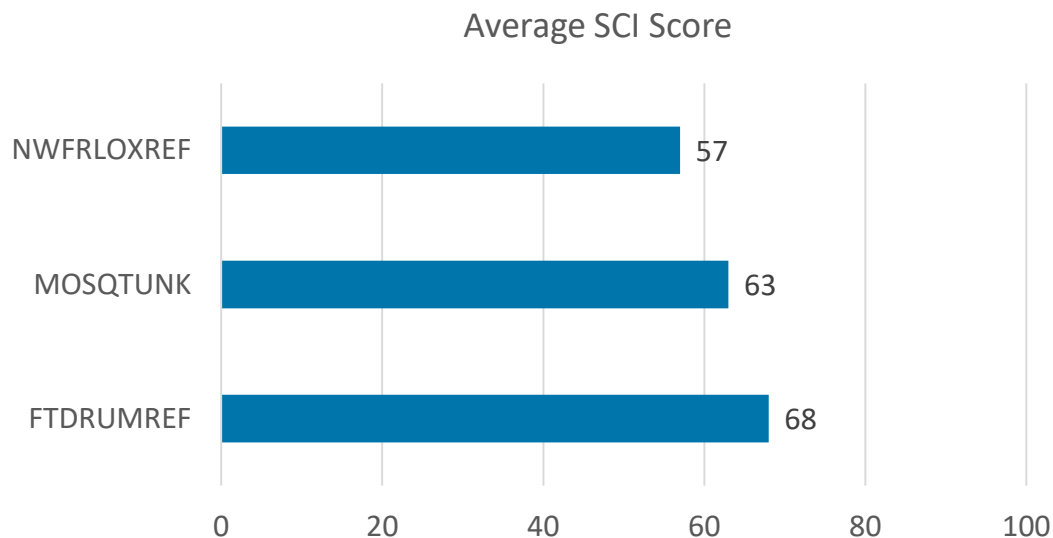
Average SCI Score



Southwest	
Mean	61
Median	63
Standard Deviation	12
Range	41
Minimum	42
Maximum	82
Count	7



Southeast SCI Results

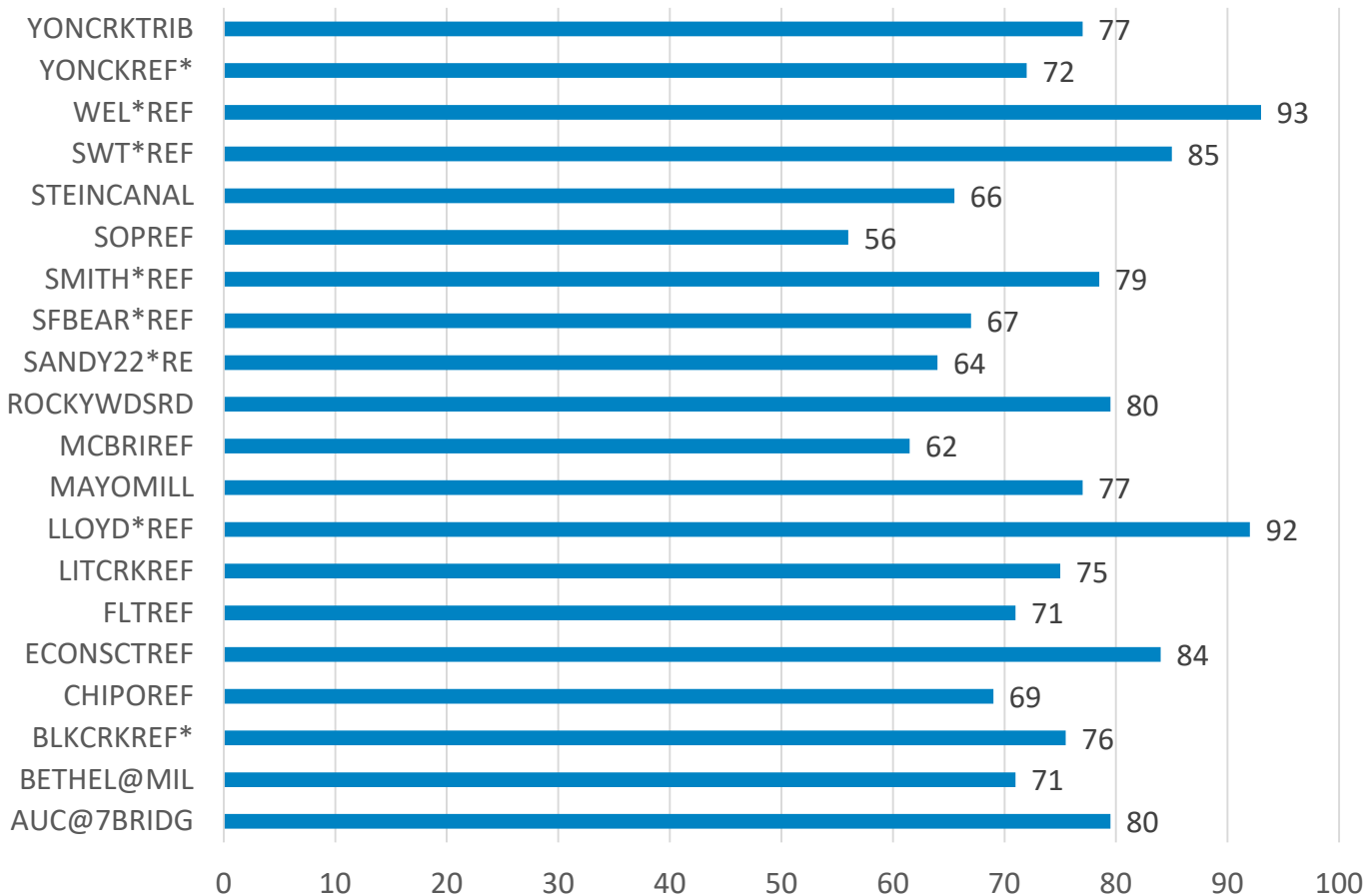


Southeast	
Mean	63
Median	63
Standard Deviation	6
Range	11
Minimum	57
Maximum	68
Count	3



Big Bend SCI Results

Average SCI Score



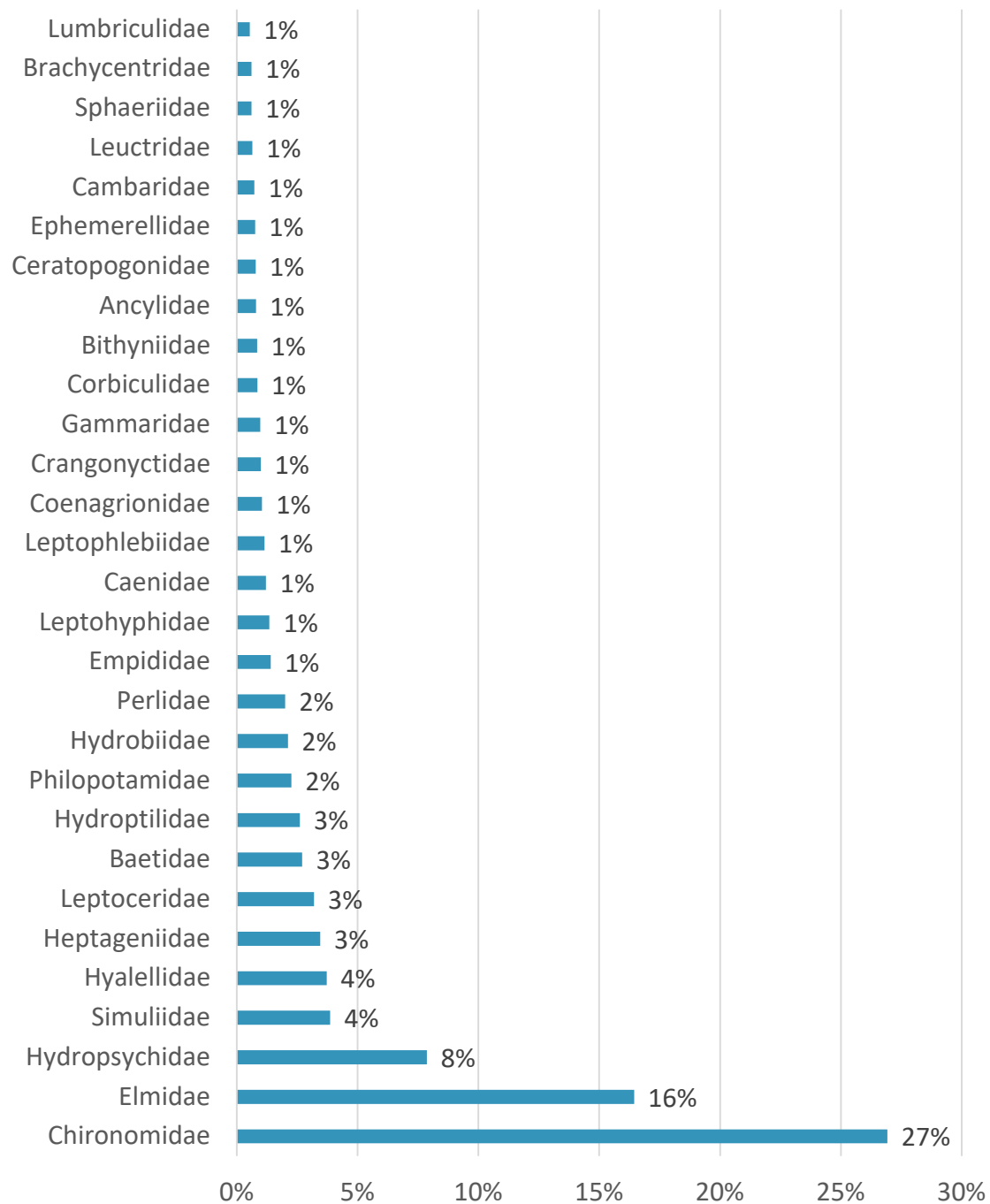
Big Bend	
Mean	75
Median	75
Standard Deviation	10
Range	37
Minimum	56
Maximum	93
Count	20



Welaunee Creek

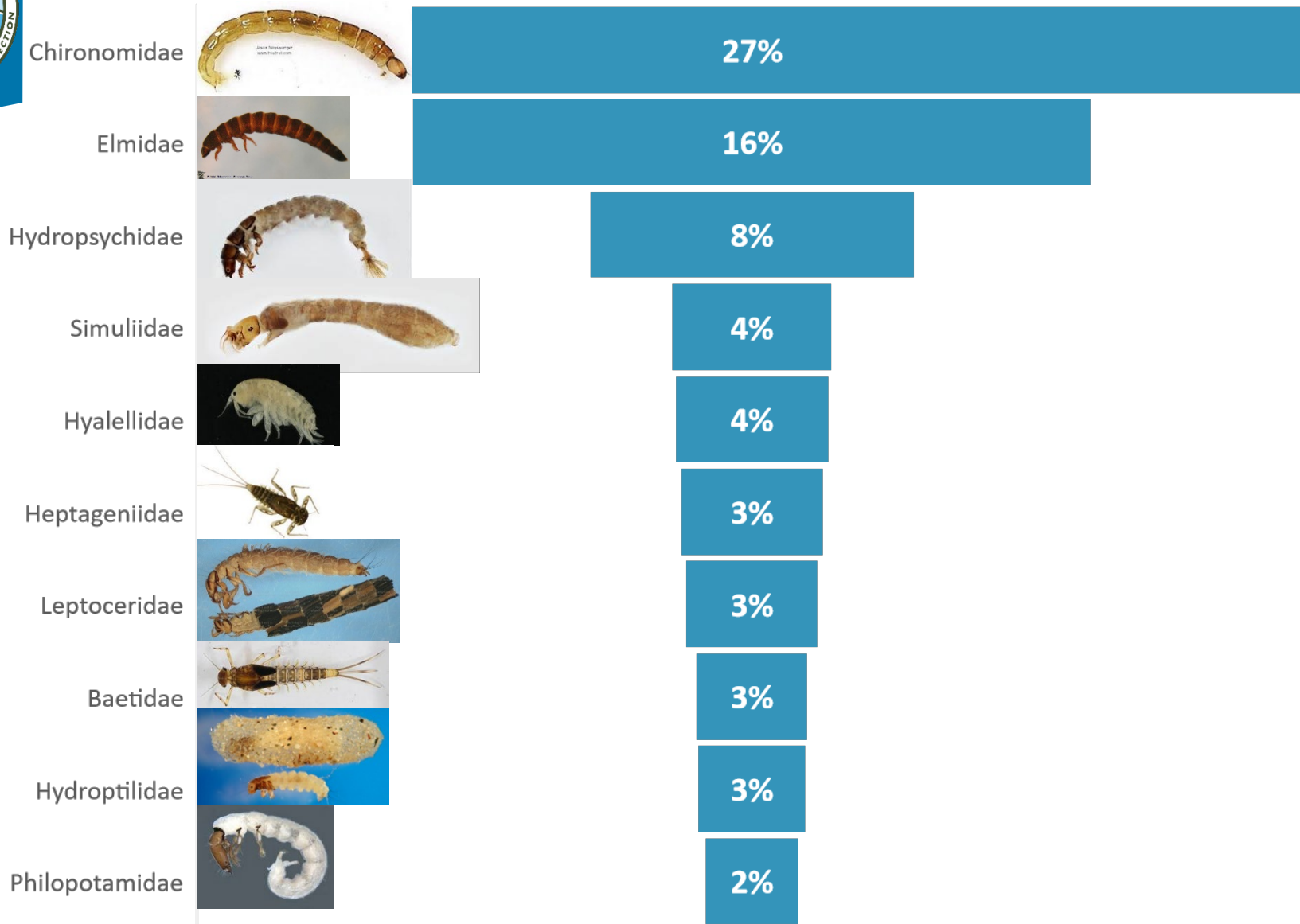
Percent Taxa Contribution

(statewide, families with $\geq 1\%$ contribution)



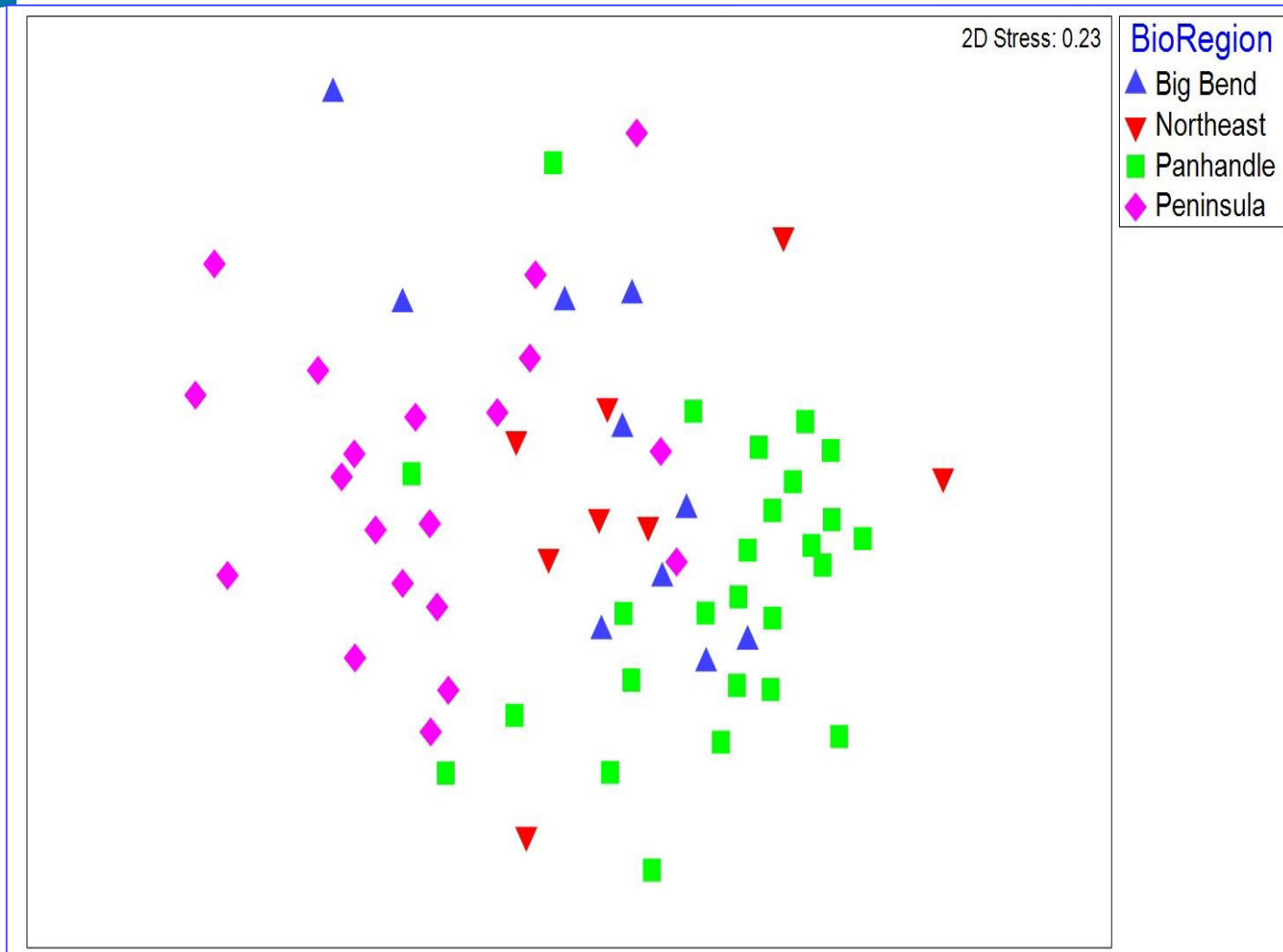


Percent Contribution-Top 10 Families





Cluster Analysis - Bioregion





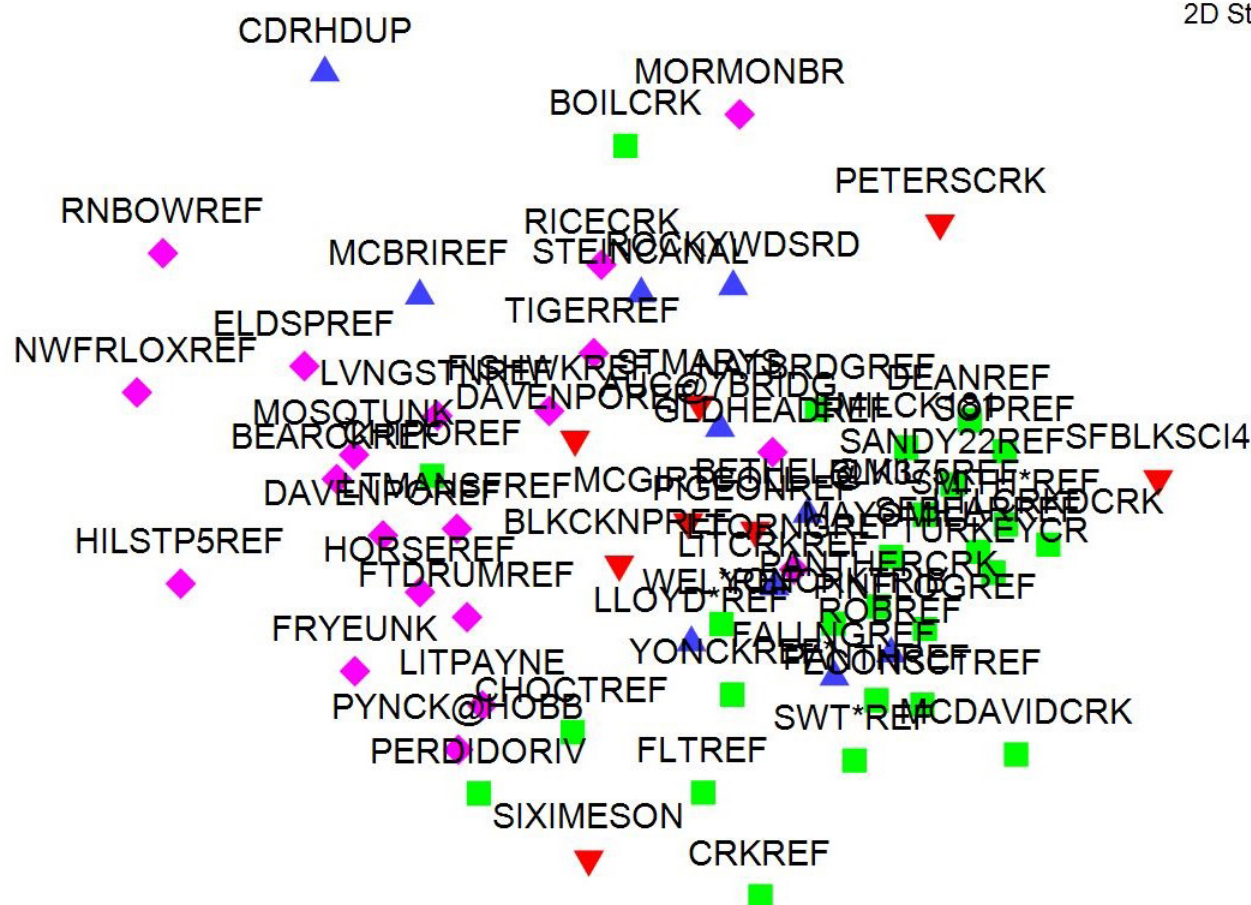
Non-metric MDS

Transform: Square root
Resemblance: S17 Bray-Curtis similarity

2D Stress: 0.23

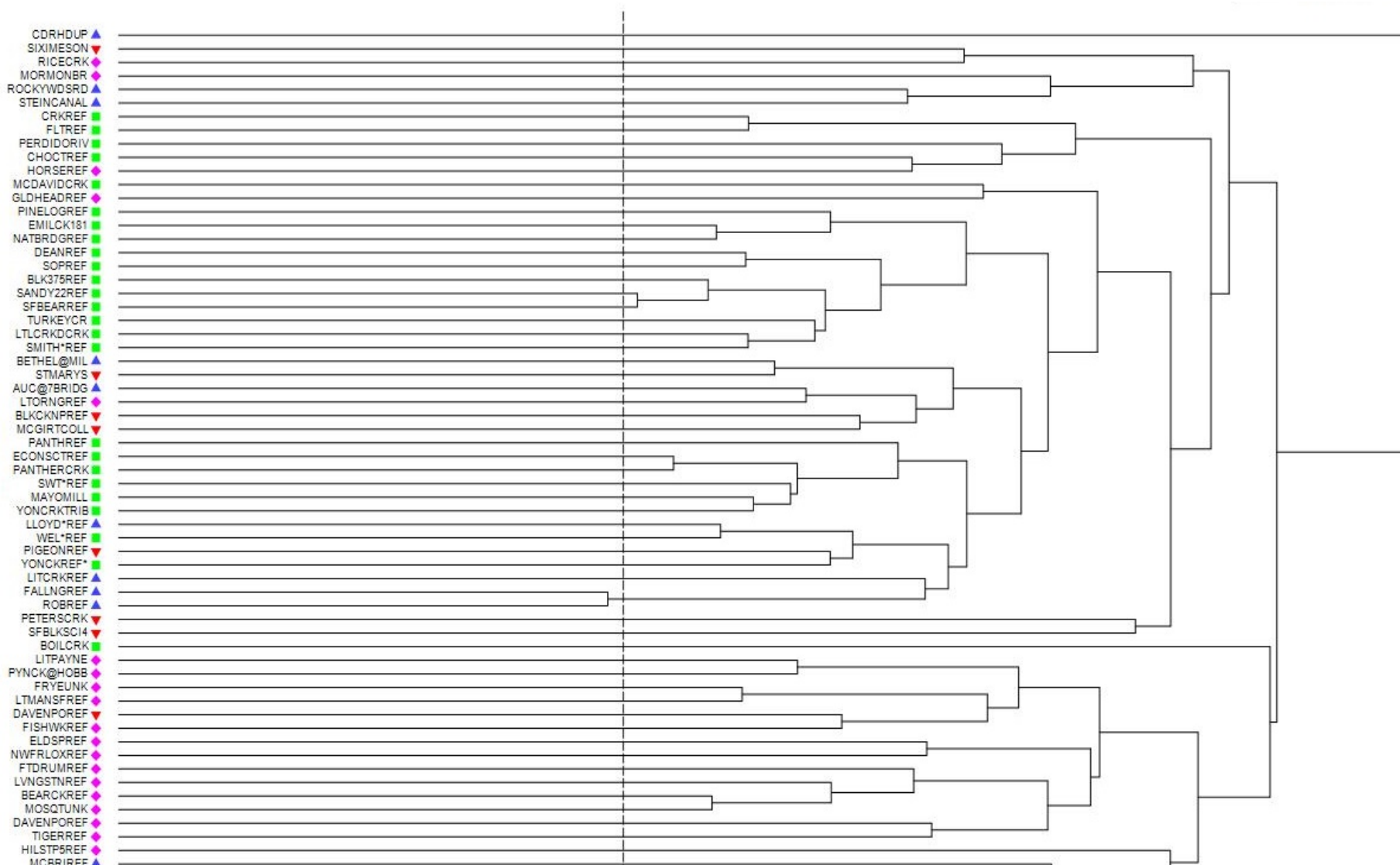
BioRegion

- ▲ Big Bend
- ▼ Northeast
- Panhandle
- ◆ Peninsula





Family Level Similarity



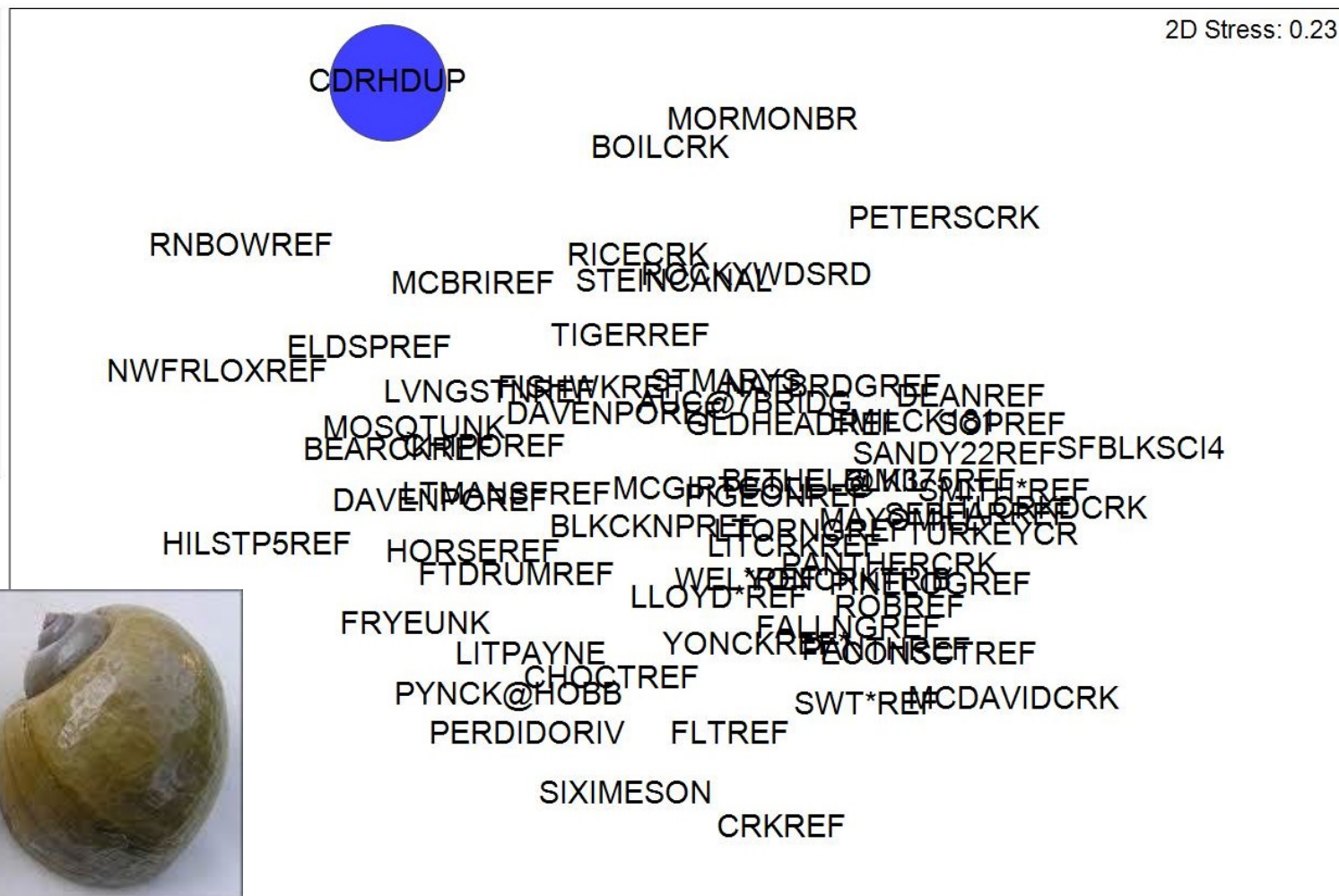


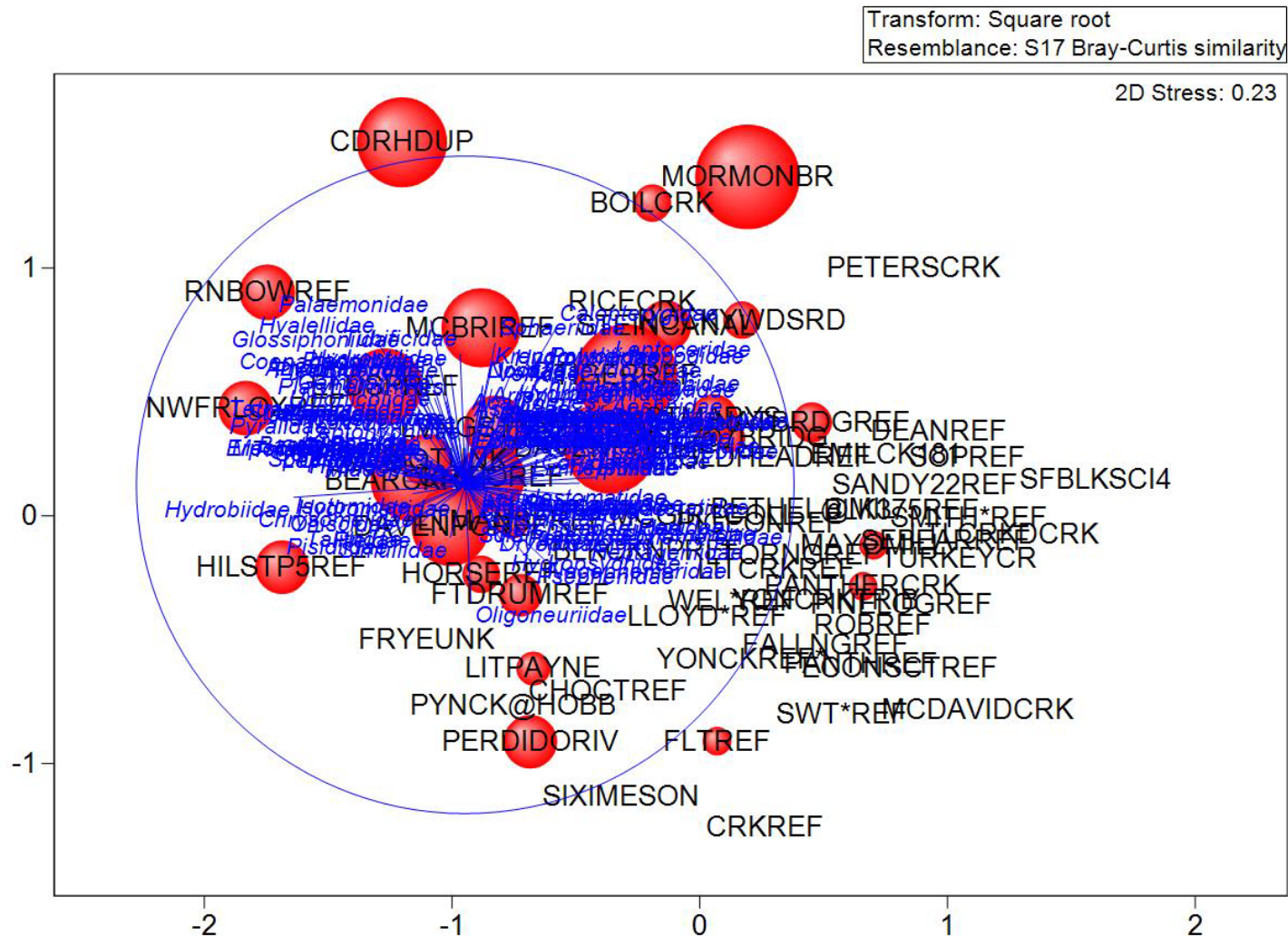
Apple snail contribution

Ampullariidae



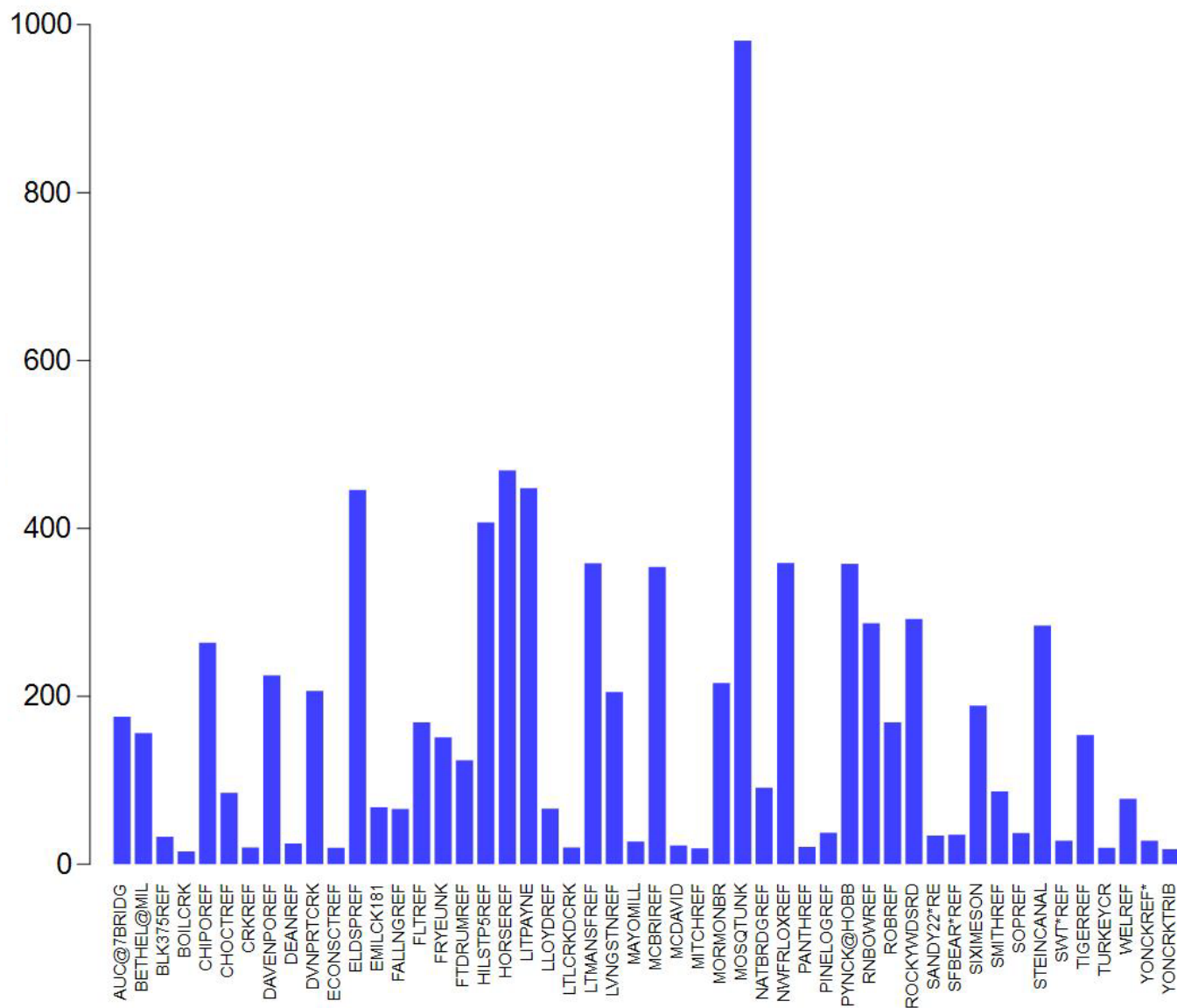
Pomacea





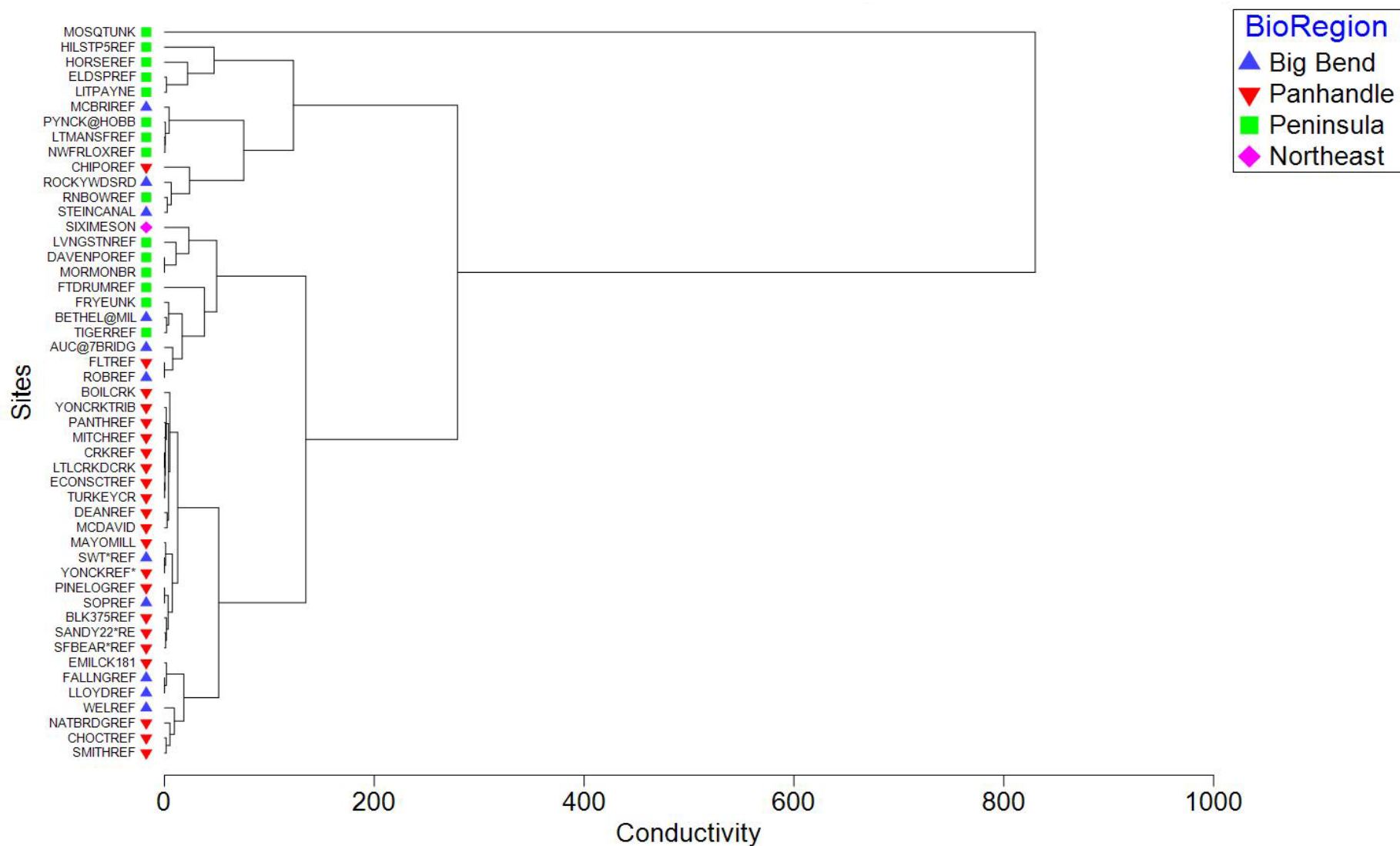


Conductivity



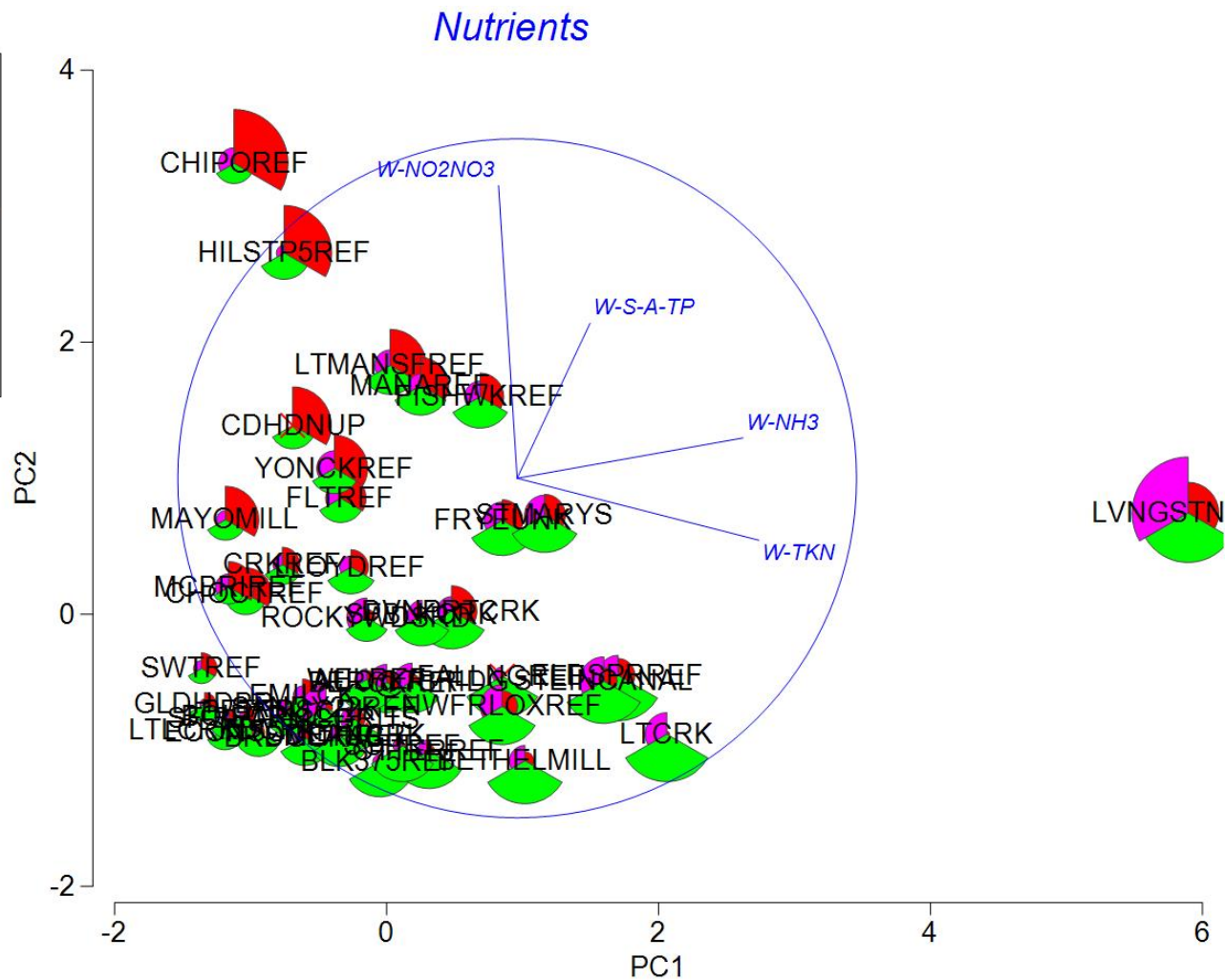
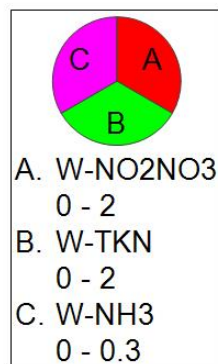


Conductivity



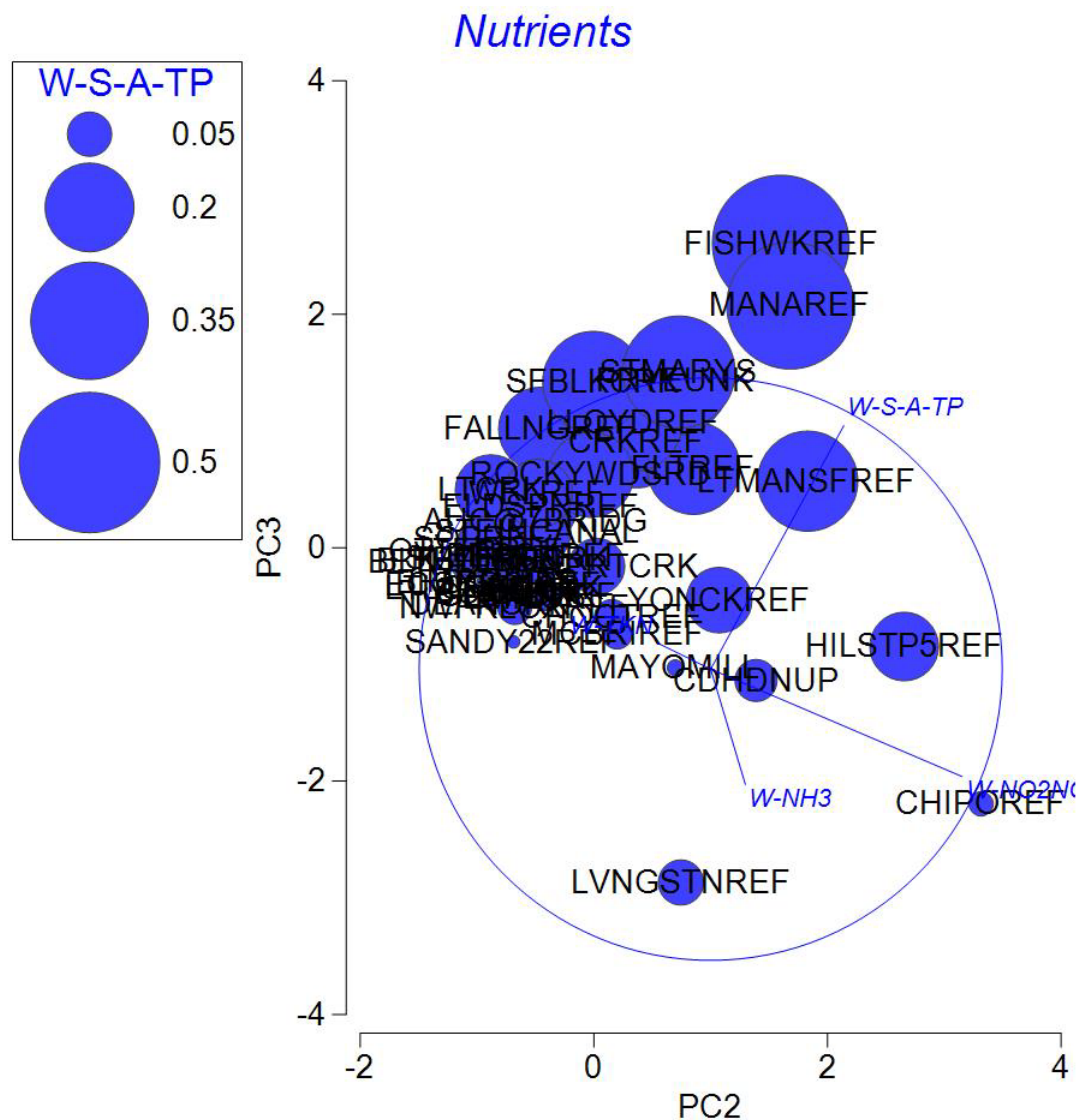


Nutrients - Nitrogen





Nutrients - Phosphorus





Selected Parameters

