Supplementary Tables

Table S1 Alpha diversity indices (mean ± SEM) for rainbow darters and central stonerollers caught from each site within Irvine Creek in the previous year.

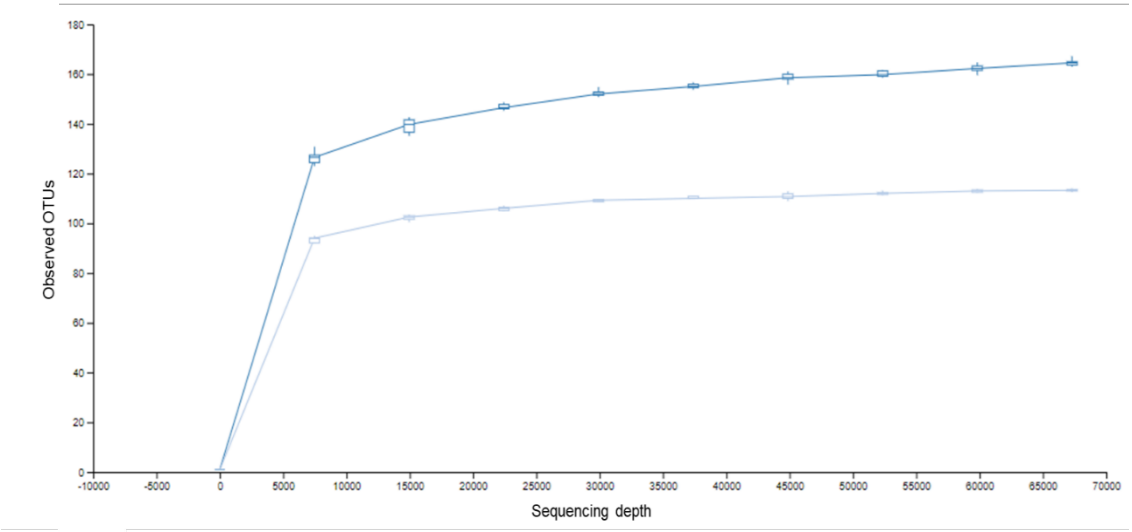
	Rainbow darter			Central stoneroller		
Metric	Site 1	Site 2	Site 3	Site 1	Site 2	Site 3
Observed OTUs	144 ± 49	261 ± 90	261 ± 122	340 ± 191	187 ± 18	231 ± 111
Shannon index	3.02 ± 1.28	4.95 ± 0.83	4.67 ± 1.49	4.17 ± 1.45	2.12 ± 0.70	3.37 ± 1.07
Simpson's evenness	0.03 ± 0.01	0.05 ± 0.01	0.05 ± 0.03	0.03 ± 0.01	0.01 ± 0.004	0.03 ± 0.01

N = 3 fish for each site.

There were no significant differences between the sites according to One-Way ANOVAs and Kruskal-Wallis tests for parametric and non-parametric data, respectively.

Supplemental Figures

A



B

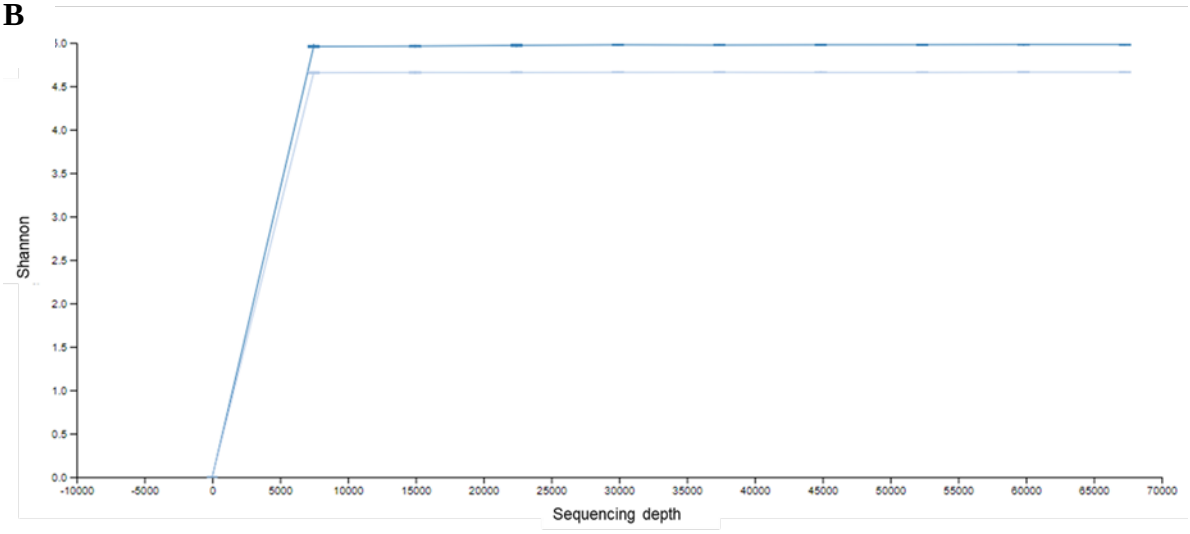


Fig S1 Alpha rarefaction curve for species richness using both observed number of bacterial OTUs (A) and the Shannon index (B). Rainbow darters are depicted in dark grey and the central stonerollers are depicted in light grey. Plateaux in both rarefaction curves indicate sufficient depth of sampling.

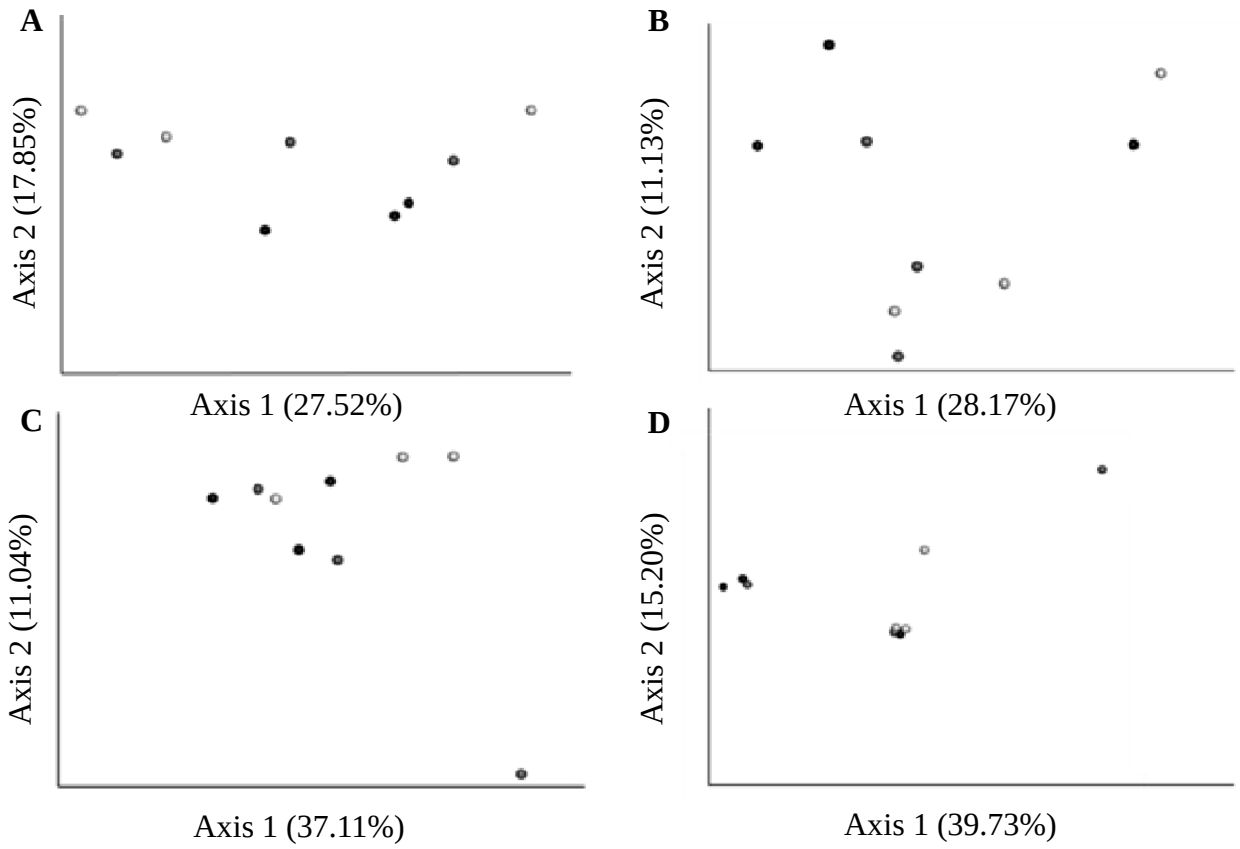


Fig S2 Effect of sampling location on microbiome composition in fish sampled from three sites along the Irvine creek. Each dot represents a sample, with individuals sampled from Site 1 in black, those taken from Site 3 in light grey, and samples from Site 2 in medium grey. Pairwise community comparisons of rainbow darters (N = 9) from the three sites were determined with (A) unweighted and (C) weighted UniFrac analyses. Comparisons were also made between central stonerollers sampled from the three locations with (B) unweighted and (D) weighted UniFrac analyses (N=9). Neither set of comparisons demonstrated any significant difference in microbiome composition along the creek gradient in either host species ($p > 0.05$).

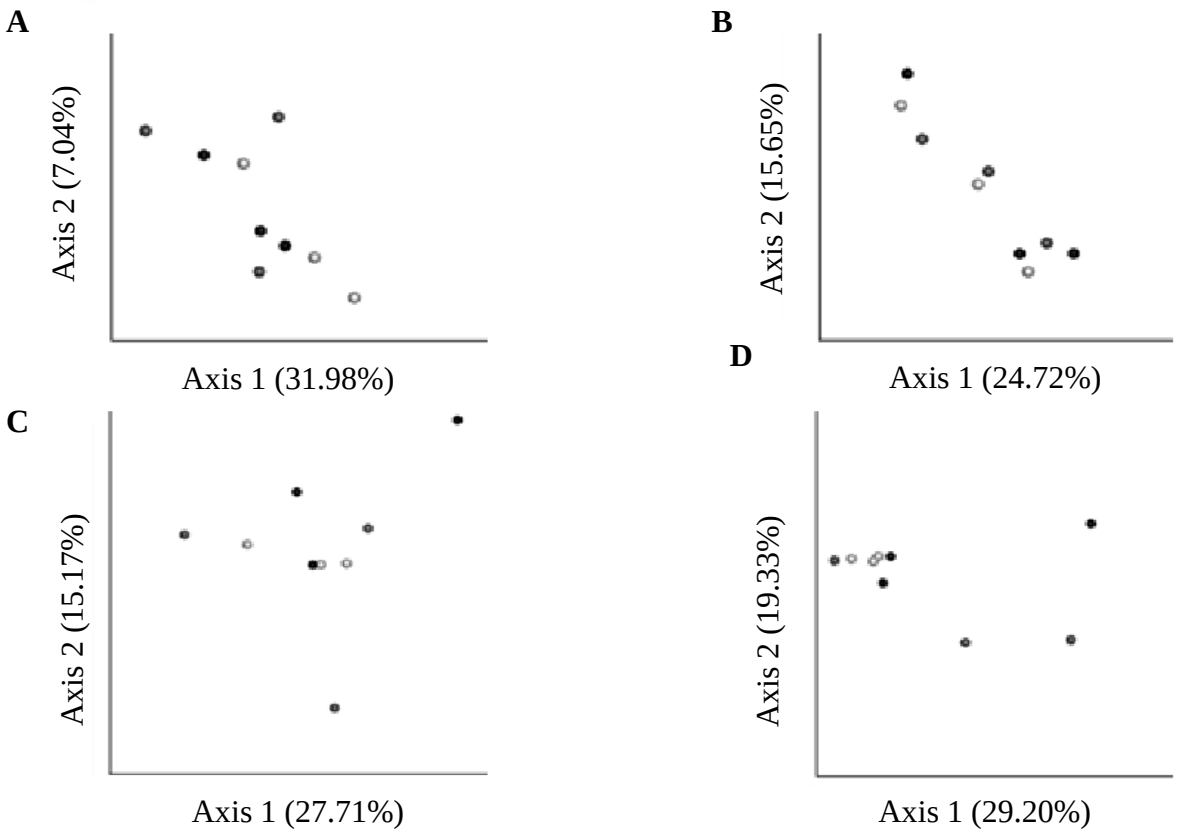


Fig S3 Effect of sampling location on microbiome composition in fish sampled from three sites along the Lutteral creek. Each dot represents a sample, with individuals sampled from Site 4 in black, Site 5 samples indicated by medium grey, and those taken from Site 6 in light grey. Pairwise community comparisons of rainbow darters (N = 9) from the three sites were determined with (A) unweighted and (C) weighted UniFrac analyses. Comparisons were also made between central stonerollers sampled from the three locations with (B) unweighted and (D) weighted UniFrac analyses (N=9). Neither set of comparisons demonstrated any significant difference in microbiome composition along the creek gradient in either host species ($p > 0.05$).

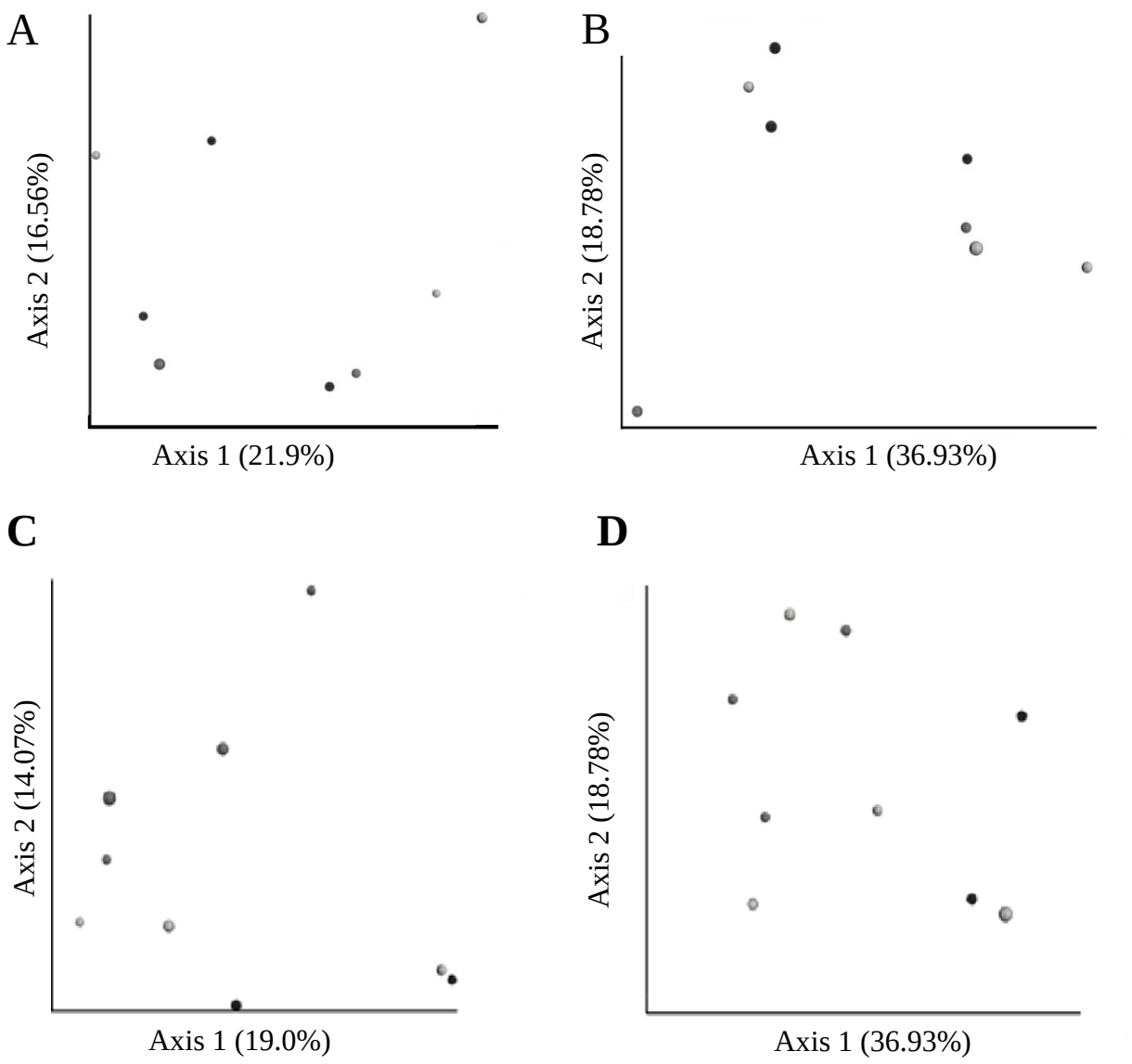


Fig S4 Effect of sampling location on microbiome composition in A;B) rainbow darters (N= 9) and C;D) central stonerollers (N=9) taken from Irvine creek in the previous year. Pairwise community comparisons were determined with (A;C) unweighted and (B;D) weighted UniFrac analyses. Each dot represents a sample. Samples taken from Site 1 are in black, Site 2 samples are in dark grey, and Site 3 samples are light grey. No differences between the sites were observed in either the unweighted (A, $p > 0.110$; C, $p > 0.211$), nor the weighted (B, $p > 0.48$; D, $p > 0.230$) UniFrac analyses.

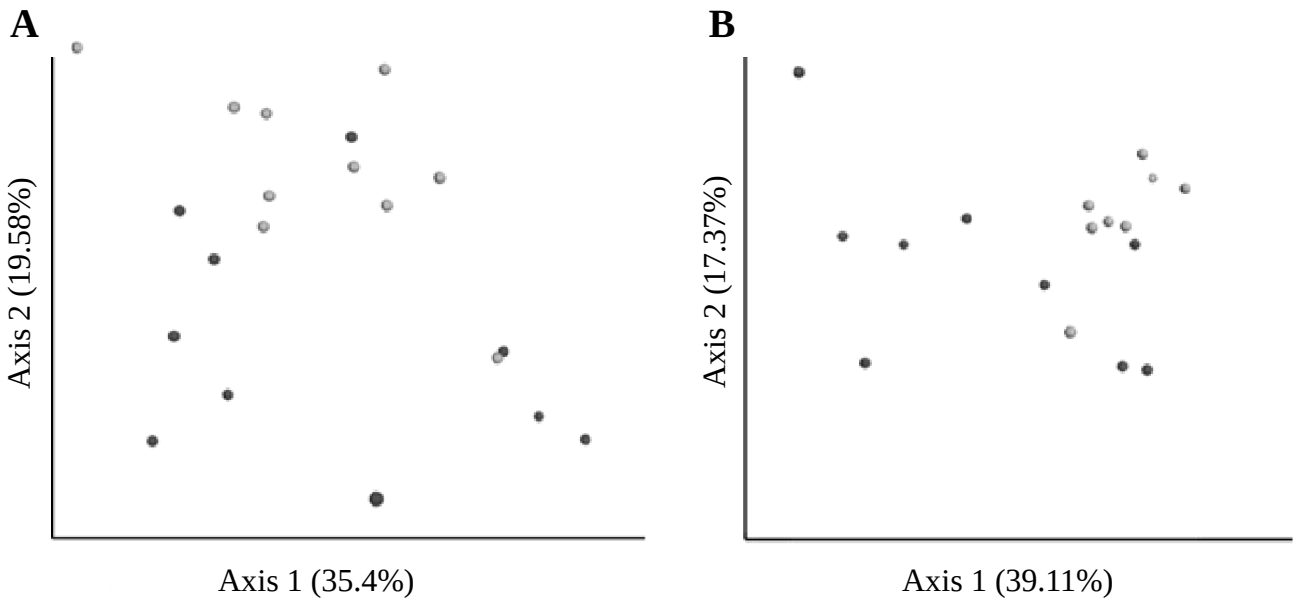


Fig S5 Effect of host species on microbiome composition in rainbow darters (N = 9) and central stonerollers (N = 10) taken from Irvine Creek the previous year. Pairwise community comparisons were determined with (A) unweighted and (B) weighted UniFrac analyses. Each dot represents a sample, with rainbow darters indicated in dark grey, and central stonerollers indicated by light grey. Significant differences between the species were observed in both UniFrac analyses ($p < 0.01$).