

Environmental filtering and habitat (mis)matching of riverine  
invertebrate communities

NRSA DisEQ-Predictor Variable Summary Tables

## Environmental Variable Summaries

Supplemental tables with summaries (i.e., mean and standard deviation) for each variable within the environmental category.

List of environmental variables:

- total N
- total P
- Dissolved organic carbon (DOC)
- Large Woody Debris in reach (LWD)
- Natural (NAT) cover
- Algal (ALG) cover
- Aquatic macrophyte (AQM) cover

Table 1: Summary of total N by ecoregion.

Ecoregion	Mean	SD
CPL	1283.29	1810.43
NAP	664.01	838.80
NPL	1314.80	4167.53
SAP	1046.70	2309.52
SPL	1809.89	3422.72
TPL	3558.77	4082.09
UMW	1558.52	1922.09
WMT	251.54	601.52
XER	782.36	2297.26

Table 2: Summary of total P by ecoregion.

Ecoregion	Mean	SD
CPL	199.55	336.10
NAP	56.99	114.48
NPL	230.96	584.58
SAP	87.24	195.46
SPL	455.05	1280.51
TPL	238.53	495.88
UMW	150.54	381.49
WMT	126.42	911.44
XER	166.96	542.55

Table 3: Summary of DOC by ecoregion.

Ecoregion	Mean	SD
CPL	10.08	14.70
NAP	4.02	2.91
NPL	7.85	5.21
SAP	2.37	1.82
SPL	4.48	2.73
TPL	5.57	8.58
UMW	9.41	10.11
WMT	1.93	1.90
XER	2.94	2.37

Table 4: Summary of LWD by ecoregion.

Ecoregion	Mean	SD
CPL	2.61	5.18
NAP	5.37	8.24
NPL	1.13	4.15
SAP	4.82	13.11
SPL	2.83	10.98
TPL	3.96	10.08
UMW	3.52	5.77
WMT	6.30	13.96
XER	1.15	2.50

Table 5: Summary of NAT cover by ecoregion.

Ecoregion	Mean	SD
CPL	0.39	0.31
NAP	0.54	0.34
NPL	0.21	0.24
SAP	0.37	0.21
SPL	0.24	0.22
TPL	0.23	0.18
UMW	0.29	0.19
WMT	0.52	0.40
XER	0.40	0.37

Table 6: Summary of ALG cover by ecoregion.

Ecoregion	Mean	SD
CPL	0.04	0.12
NAP	0.04	0.09
NPL	0.05	0.13
SAP	0.01	0.04
SPL	0.06	0.13
TPL	0.04	0.10
UMW	0.04	0.10
WMT	0.04	0.09
XER	0.07	0.14

Table 7: Summary of AQM cover by ecoregion.

Ecoregion	Mean	SD
CPL	0.10	0.17
NAP	0.05	0.09
NPL	0.11	0.18
SAP	0.03	0.07
SPL	0.07	0.16
TPL	0.05	0.16
UMW	0.07	0.14
WMT	0.08	0.14
XER	0.12	0.18

## Landscape Variable Summaries

Supplemental tables with summaries (i.e., mean and standard deviation) for each variable within the landscape category.

List of landscape variables:

- % forested land cover
- % agricultural land cover
- % urban land cover
- % impervious surface land cover

Table 8: Summary of % forested land cover by ecoregion.

Ecoregion	Mean	SD
CPL	39.64	25.47
NAP	65.69	27.18
NPL	8.76	15.91
SAP	62.23	25.61
SPL	12.42	16.59
TPL	9.78	15.66
UMW	38.20	24.42
WMT	65.86	21.74
XER	31.29	26.64

Table 9: Summary of % agricultural land cover by ecoregion.

Ecoregion	Mean	SD
CPL	24.69	26.66
NAP	15.48	22.07
NPL	18.60	21.58
SAP	20.34	21.66
SPL	26.56	25.55
TPL	72.16	24.71
UMW	31.68	29.80
WMT	0.34	1.07
XER	1.78	5.17

Table 10: Summary of % urban land cover by ecoregion.

Ecoregion	Mean	SD
CPL	11.65	19.86
NAP	9.29	15.47
NPL	1.72	1.45
SAP	11.45	18.96
SPL	4.41	6.37
TPL	8.08	12.88
UMW	7.07	14.59
WMT	1.37	2.53
XER	1.59	3.56

Table 11: Summary of % impervious surface land cover by ecoregion.

Ecoregion	Mean	SD
CPL	2.80	7.35
NAP	2.12	4.43
NPL	0.29	0.17
SAP	2.31	5.54
SPL	0.83	2.75
TPL	1.55	3.80
UMW	1.52	5.86
WMT	0.24	0.49
XER	0.42	0.95

## Network Variable Summaries

Supplemental tables with summaries (i.e., mean and standard deviation) for each variable within the network category.

List of network variables:

- Site latitude
- Site longitude
- Basin area
- Mean annual flow
- Mean basin elevation
- Range basin elevation
- Site centrality

Table 12: Summary of latitude by ecoregion.

Ecoregion	Mean	SD
CPL	33.71	3.37
NAP	42.79	1.65
NPL	45.45	1.63
SAP	36.80	2.10
SPL	37.21	3.39
TPL	41.35	2.79
UMW	44.91	1.71
WMT	41.71	4.34
XER	39.42	3.25

Table 13: Summary of longitude by ecoregion.

Ecoregion	Mean	SD
CPL	-86.09	6.84
NAP	-74.88	3.84
NPL	-103.84	3.30
SAP	-83.95	5.53
SPL	-99.71	2.59
TPL	-92.30	4.37
UMW	-89.63	3.25
WMT	-114.35	6.27
XER	-114.09	4.42

Table 14: Summary of basin area by ecoregion.

Ecoregion	Mean	SD
CPL	74.44	260.34
NAP	79.45	226.01
NPL	4423.64	7566.12
SAP	171.52	638.19
SPL	15335.91	28135.59
TPL	525.25	1715.87
UMW	243.81	567.93
WMT	688.62	1755.52
XER	5671.01	20665.27

Table 15: Summary of mean annual flow by ecoregion.

Ecoregion	Mean	SD
CPL	0.83	2.63
NAP	1.23	3.31
NPL	1.57	3.74
SAP	2.20	8.37
SPL	18.62	50.78
TPL	0.85	1.50
UMW	1.30	2.29
WMT	1.88	4.73
XER	7.12	18.97

Table 16: Summary of mean basin elevation by ecoregion.

Ecoregion	Mean	SD
CPL	71.42	46.25
NAP	378.20	178.08
NPL	1089.50	451.04
SAP	358.49	232.92
SPL	996.35	655.02
TPL	319.56	95.01
UMW	336.65	80.00
WMT	1965.92	859.14
XER	1957.40	559.95



Table 17: Summary of range basin elevation by ecoregion.

Ecoregion	Mean	SD
CPL	42.84	39.73
NAP	285.52	261.51
NPL	665.34	585.38
SAP	237.58	246.51
SPL	1058.55	1271.65
TPL	85.99	71.80
UMW	94.89	66.57
WMT	982.02	595.57
XER	1383.13	728.23

Table 18: Summary of site centrality by ecoregion.

Ecoregion	Mean	SD
CPL	626.61	208.16
NAP	566.39	196.10
NPL	456.08	160.82
SAP	601.24	209.48
SPL	579.67	214.03
TPL	650.70	227.91
UMW	727.24	217.67
WMT	620.51	227.77
XER	683.80	225.49