

Ecological Water Resources and Assessment Project

Assessment of Ecoregional Dissolved Oxygen Regimes 2006 Data Summary for Cedar Creek near Route Z (CC-1)

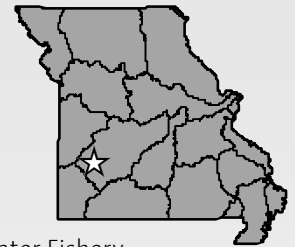
DATA OF INTEREST

Dissolved Oxygen (n= 61 days)	
Percent Time Below 5.0 mg/L	52 %
Percent Time Below 3.0 mg/L	30 %
Daily Mean	5.2 mg/L
Mean Daily Minimum	1.2 mg/L
Water Temperature (n= 61 days)	
Daily Mean	28.2 °C
Mean Daily Maximum	32.1 °C
Mean Daily Range	7.1 °C
Total Phosphorus (n= 9 samples)	
Median Concentration	150 ug/L
EPA Level III Ecoregion 25 th Percentile	6.63 ug/L
Total Nitrogen (n= 9 samples)	
Median Concentration	1.71 mg/L
EPA Level III Ecoregion 25 th Percentile	0.38 mg/L
Nitrate + Nitrite (n= 9 samples)	
*non-detect values=MDL/2 *Median Concentration	0.01 mg/L
EPA Level III Ecoregion 25 th Percentile	0.24 mg/L
Sestonic Chlorophyll-a (n= 9 samples)	
Median Concentration	48.3 ug/L
EPA Level III Ecoregion 25 th Percentile	0.35 ug/L
Periphyton Chlorophyll-a	
(n= 9 samples based on 5 replicates per week)	
Median Areal Biomass	72.4 mg/m ²
EPA Level III Ecoregion 25 th Percentile	NA

SITE INFORMATION

Location

Cedar County, Missouri
Northing 4170345 Easting 419787 NAD83



Classification → Class P, General Warm-Water Fishery
Biocriteria Reference Stream
Riffle-Pool

Watershed → Hydrologic Unit Code 10290106
Ecological Drainage Unit 27
Ozark/Osage
EPA Aggregate Ecoregion XI
Central and Eastern Forested Uplands
EPA Level III Ecoregion 39 (Ozark Highlands)
Drainage Area 87.6 square miles

Landuse →

Urban	0.47 %
Row-Crop	14.2%
Grassland	66.1%
Forest & Woodland	18.2%
Percent Refugia	0.55%

Sampling Period → 13 July 2006 – 13 September 2006

Days with Flow < 0.1 ft³/sec → 63 (100%)

Days Dominated by Runoff → 1 (1.6%)

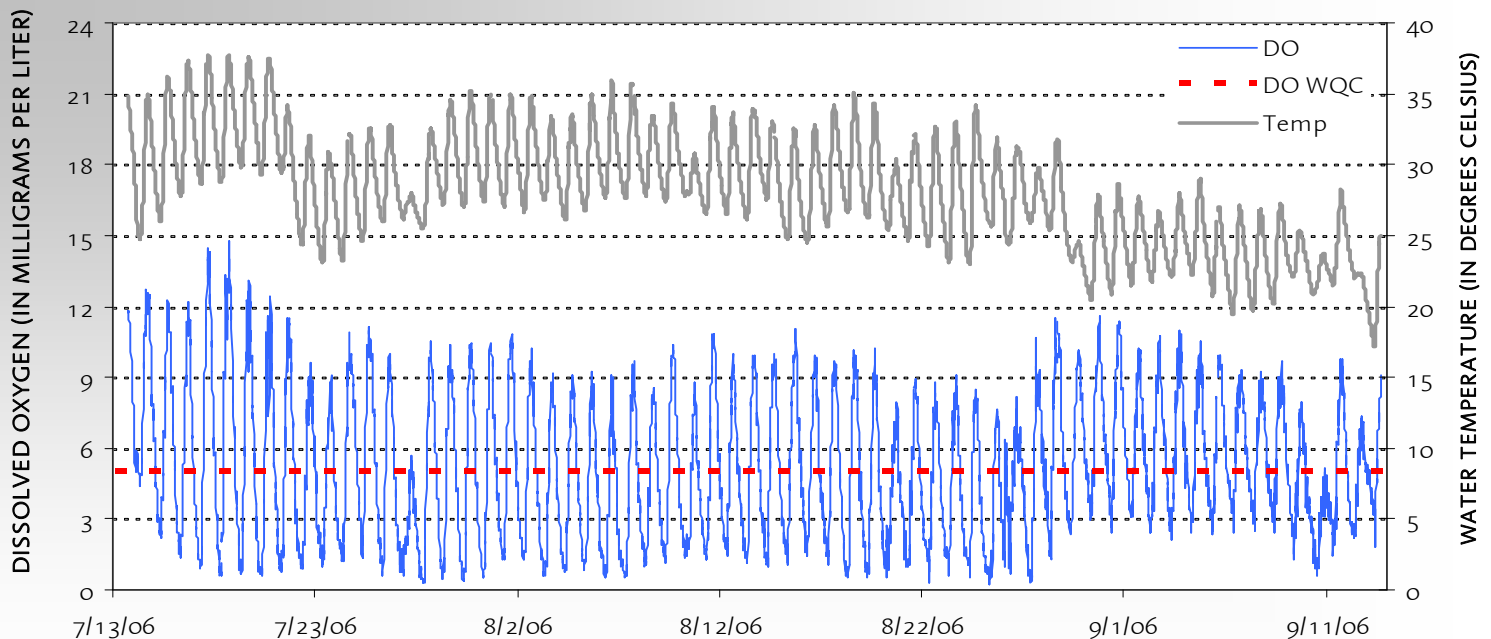


FIG 1. Continuous Dissolved Oxygen and Temperature Timeseries Collected at 15-minute intervals from 07/13/06 to 09/13/06. Cedar Creek near Route Z (CC-1).

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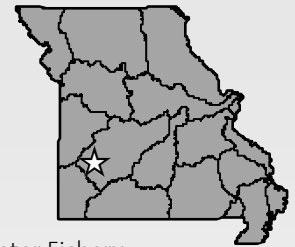
Assessment of Ecoregional Dissolved Oxygen Regimes 2006 Data Summary for Cedar Creek near Route B (CC-2)

DATA OF INTEREST

Dissolved Oxygen (n= 24 days)	
Percent Time Below 5.0 mg/L	75 %
Percent Time Below 3.0 mg/L	66 %
Daily Mean	3.5 mg/L
Mean Daily Minimum	0.1 mg/L
Water Temperature (n= 24 days)	
Daily Mean	27.7 °C
Mean Daily Maximum	31.4 °C
Mean Daily Range	6.9 °C
Total Phosphorus	
Median Concentration	NA
EPA Level III Ecoregion 25 th Percentile	NA
Total Nitrogen	
Median Concentration	NA
EPA Level III Ecoregion 25 th Percentile	NA
Nitrate + Nitrite	
Median Concentration	NA
EPA Level III Ecoregion 25 th Percentile	NA
Sestonic Chlorophyll-a	
Median Concentration	NA
EPA Level III Ecoregion 25 th Percentile	NA
Periphyton Chlorophyll-a	
Median Areal Biomass	NA
EPA Level III Ecoregion 25 th Percentile	NA

SITE INFORMATION

Location
Cedar County, Missouri
Northing 4164046 Easting 419475 NAD83



Classification → Class P, General Warm-Water Fishery
Biocriteria Reference Stream
Riffle-Pool

Watershed → Hydrologic Unit Code 10290106
Ecological Drainage Unit 27
Ozark/Osage
EPA Aggregate Ecoregion XI
Central and Eastern Forested Uplands
EPA Level III Ecoregion 39 (Ozark Highlands)

*Landuse

*Landuse not calculated - monitoring was discontinued following observation of cattle within monitoring reach.

Sampling Period → 12 July 2006 – 7 August 2006

Days with Flow < 0.1 ft³/sec → NA

Days Dominated by Runoff → NA

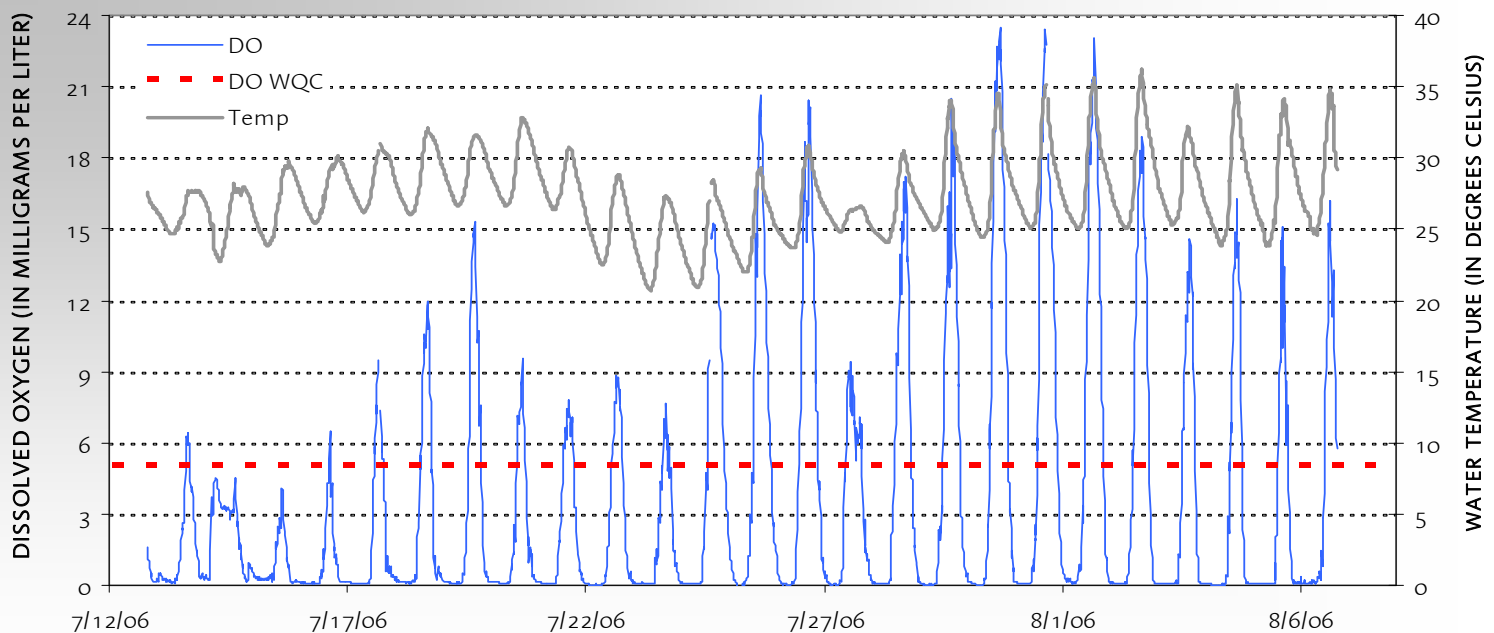


FIG 1. Continuous Dissolved Oxygen and Temperature Timeseries Collected at 15-minute intervals from 07/12/06 to 08/07/06. Cedar Creek near Route B (CC-2).

Ecological Water Resources and Assessment Project

Assessment of Ecoregional Dissolved Oxygen Regimes 2006 Data Summary for Cedar Creek near County Road 1320 (CC-5)

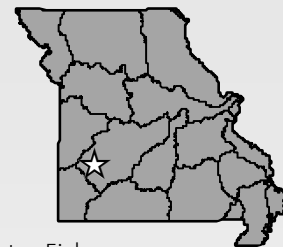
DATA OF INTEREST

Dissolved Oxygen (n= 36 days)	
Percent Time Below 5.0 mg/L	77 %
Percent Time Below 3.0 mg/L	40 %
Daily Mean	3.7 mg/L
Mean Daily Minimum	1.5 mg/L
Water Temperature (n= 36 days)	
Daily Mean	24.3 °C
Mean Daily Maximum	25.8 °C
Mean Daily Range	2.6 °C
Total Phosphorus	
Median Concentration	NA
EPA Level III Ecoregion 25 th Percentile	NA
Total Nitrogen	
Median Concentration	NA
EPA Level III Ecoregion 25 th Percentile	NA
Nitrate + Nitrite	
Median Concentration	NA
EPA Level III Ecoregion 25 th Percentile	NA
Sestonic Chlorophyll-a	
Median Concentration	NA
EPA Level III Ecoregion 25 th Percentile	NA
Periphyton Chlorophyll-a	
Median Areal Biomass	NA
EPA Level III Ecoregion 25 th Percentile	NA

SITE INFORMATION

Location

Cedar County, Missouri
Northing 4173749 Easting 420934 NAD83



Classification → Class P, General Warm-Water Fishery
Biocriteria Reference Stream
Riffle-Pool

Watershed → Hydrologic Unit Code 10290106
Ecological Drainage Unit 27
Ozark/Osage
EPA Aggregate Ecoregion XI
Central and Eastern Forested Uplands
EPA Level III Ecoregion 39 (Ozark Highlands)
Drainage Area 112.5 square miles

Landuse →

Urban	0.60 %
Row-Crop	11.9%
Grassland	65.2%
Forest & Woodland	21.09%
Percent Refugia	0.60%

Sampling Period → 7 August 2006 – 13 September 2006

Days with Flow < 0.1 ft³/sec → NA

Days Dominated by Runoff → NA

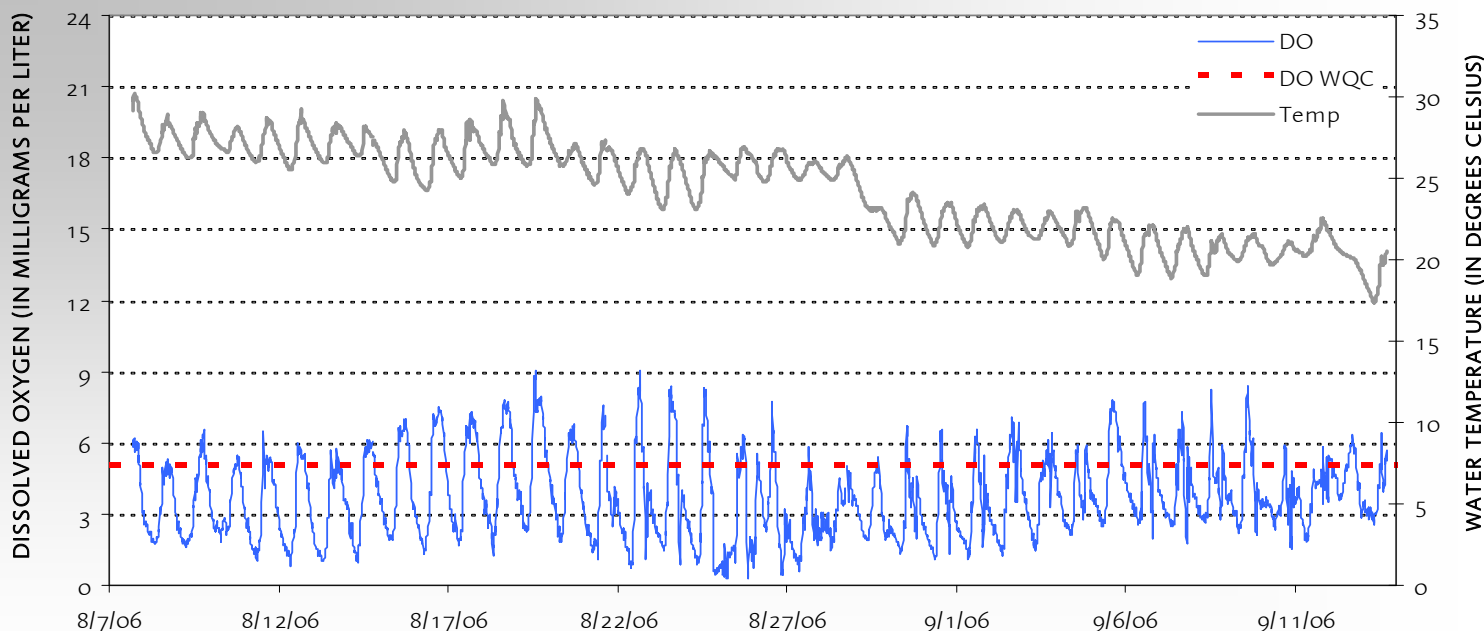


FIG 1. Continuous Dissolved Oxygen and Temperature Timeseries Collected at 15-minute intervals from 08/07/06 to 09/13/06. Cedar Creek near County Road 1320 (CC-5).