

BIOLOGICAL WATER QUALITY ASSESSMENT OF THE LITTLE WOLF RIVER
WATERSHED

By

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Abstract

The Little Wolf River watershed comprises high quality trout waters in central Wisconsin and includes stream reaches in Waupaca, Marathon, Portage, and Waupaca counties. This watershed was chosen because of the high quality brook trout (*Salvelinus fontinalis* (Mitchell)) fishery in the upper headwaters and tributaries and the potential for degradation of water quality through changing land use and development within the watershed will have on the fishery.

Rapid bioassessment techniques are used by many government agencies to gauge organic impacts on small streams and rivers. Biotic index data and spatial analysis of land use within watersheds are used to locate areas of potential organic pollution. Results of rapid bioassessment surveys can be analyzed with land cover at different scales using Geographic Information Systems (GIS) software.

The Hilsenhoff Biotic Index (BI) was used to establish baseline conditions and gauge impairment status of the Little Wolf River watershed. Based on the macroinvertebrate communities examined in this study the Little Wolf River basin is “slightly to moderately” impacted. Spring samples had significantly ($p < 0.01$) higher Hilsenhoff BI Max10 values (more impacted), and lower Ephemeroptera-Plecoptera-Trichoptera (EPT) richness. There was no statistical difference in sub-watershed quality classifications, species richness, generic richness, or the diversity index.

BI Max10 scores were significantly ($p < 0.05$) correlated to land cover classes in areas 1.61km upstream of sites and 100m and 250m wide in spring but not fall. The BI Max10 was not correlated with watershed scale land cover in either season. Watershed scale land practices need to be investigated in other watersheds of the north central

hardwoods ecoregion because agricultural land cover in the Little Wolf River basin was likely too sparse to impact water quality on a large scale.

Diversity was positively correlated to cumulative stream meters in both seasons. BI Max10 values showed high variability in the smaller streams but approached the watershed average after 250 stream km. This subject needs to be investigated further because of sparse sampling of larger stream reaches.

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The Little Wolf River (LWR) watershed (Fig. 1) comprises high quality trout waters in central Wisconsin and includes stream reaches in Waupaca, Marathon, Portage, and Waupaca counties. The LWR is a fifth order stream where it joins the larger Wolf River. The majority of its river km are 3rd order or smaller. There has been considerable interest in the water quality of the LWR watershed by state, county and municipal agencies and local interest groups due to the high quality brook trout (*Salvelinus fontinalis* (Mitchell)) fishery in the upper headwaters and tributaries and the potential for degradation of water quality through changing land cover and development within the watershed (WDNR, 1997).

The documentation of water quality in the Little Wolf River and its potential trends is very important to the communities of central Wisconsin. The current water quality classification and the impacts of surrounding land cover on the watershed were unknown before this study. The primary goals of this study were to establish baseline conditions for the LWR watershed and investigate impacts of surrounding land cover using rapid bioassessment techniques.

Aquatic macroinvertebrates were first used by Chutter (1972) to assess water quality in South African streams. Hilsenhoff (1977) established sampling protocols and tolerance values for macroinvertebrates used to calculate the biotic index (BI) in Wisconsin streams. Hilsenhoff (1977) assigned organism tolerance values of 0-5 and five grades of water quality classifications from 0 (excellent) to 5 (very poor). Field and laboratory methods and the application of the BI were tested on over 1000 Wisconsin streams. The BI was highly correlated with organic inputs of phosphorus, nitrogen, and chlorides (Hilsenhoff, 1982). In 1987 Hilsenhoff revised many specific organism

tolerance values and expanded the scale to 0-10 to improve precision. The scale of water quality classifications was also expanded from 5 to 7 classes (Table 1).

Table 1. Water quality classifications for the Hilsenhoff Biotic Index (BI) (Hilsenhoff 1987)

BI Value	Water Quality	Degree of Organic Pollution
0.00-3.50	Excellent	No apparent organic pollution
3.51-4.50	Very Good	Slight organic pollution
4.51-5.50	Good	Some organic pollution
5.51-6.50	Fair	Fairly significant organic pollution
6.51-7.50	Fairly Poor	Significant organic pollution
7.51-8.50	Poor	Very significant organic pollution
8.51-10.00	Very Poor	Severe organic pollution

Hilsenhoff (1988a) developed a family-level biotic index (FBI) to allow for more rapid assessment but found that the FBI was less accurate than the BI and suggested that it only be used in situations where a rapid assessment is needed.

Seasonal correction factors for the BI were proposed by Hilsenhoff (1988b) for warm and cold water streams to allow for more precise sampling during the spring and fall. Spring and fall are the best times to sample macroinvertebrates because dissolved oxygen (DO) levels are usually higher and not limiting. Sampling in summer is not recommended because increased temperature and decreased flow lower DO levels that cause some species to diapause in the egg stage making them unavailable to standard BI sampling methods (Hilsenhoff, 1988b). To further improve the precision and reduce seasonal variability of the BI Hilsenhoff (1998) suggested limiting the individuals of each taxon used in BI calculations to 10 and suggested that sampling could occur at any time of the year using this modification. This modification reduces the effects of “sample swamping” that occur during some times of the year due to life history changes such as emergence where unusually high numbers of individuals stage in specific microhabitats.

Lillie and Schlessner (1994) developed a mean tolerance index (TBI), essentially a modified BI, which weighed the values of rare and dominant taxa equally by including only one individual for each taxon used in the calculations. This index is less prone to temporal variation than the BI and can be used along with the BI to determine long term trends in water quality, but appears to be less sensitive (Hilsenhoff, 1998).

The greatest advantage of using a BI to assess water quality rather than chemical analysis is that it provides an insight into stream water quality over a longer time period. Macroinvertebrates are exposed to changing water chemistry throughout their life cycles and must endure the minimum and maximum changes to their important chemical and physical variables to survive in a particular stream. The macroinvertebrate community is therefore an excellent barometer of stream conditions throughout the year. The BI is most effective when used to detect organic pollution and nutrient enrichment (Hilsenhoff, 1977).

There has been difficulty consistently describing the interaction between the landscape and stream biota. Substrate and in-stream conditions has been more directly correlated than macroinvertebrates to agricultural land cover at both the local and regional scales (Richards et al. 1996). Macroinvertebrate communities were better predicted by streambed conditions than nitrogen and phosphorus levels in catchments with clay soils but not sandy soils (Richards et al., 1993). Lammert et al. (1999) found BI scores were best predicted by substrate size, velocity, and percent agriculture within 50 meters of the stream edge. The variation in results from these studies suggests human activity does not impact all watersheds equally.

Chemical composition studies have been done on the Lower Little Wolf River to test the effects of land cover in a Wisconsin Department of Natural Resources (WDNR) priority watershed (Graceffa, et al. 2002, WDNR, 1997). The LWR has not been systematically sampled for macroinvertebrates except for Hooper's (1993) study of Comet Creek, but sporadic samples have been taken throughout the watershed since 1979. BI values and substrate data were generated from historical samples, but no BI baseline has been established for the watershed.

The primary objectives of this study were to: document water quality throughout the basin using rapid bioassessment techniques; provide water quality classifications for the basin including all tributaries and main branches; provide baseline data on macroinvertebrate compositions and distribution for future studies; determine if land cover and water quality are correlated in the basin; and determine if there are longitudinal trends in water quality basin-wide. This baseline study and land cover analysis will be important in understanding factors affecting water quality in the Little Wolf River (LWR).

METHODS

Description of Study Area

The LWR flows southeast predominately through Waupaca County, Wisconsin with small portions contained in Marathon, Portage, and Shawano Counties. The LWR watershed drains 1356 km², contains approximately 894 stream km, and has three main branches- the Upper, Lower, and South, and 24 named tributaries (WDNR, 2005) (Fig. 1).

The LWR watershed contains 258 km and 88 km of Class 1 and Class 2 trout streams respectively (WDNR, 2006). Class 1 streams are high quality waters that are able to sustain natural populations of wild trout without stocking. Class 2 streams are sometimes stocked to enhance the fishery (WDNR, 2006).

The Upper Little Wolf River (ULWR) watershed drains 469 km² and comprises 52 stream km of the LWR (WDNR, 2005). The ULWF watershed contains 165 and 53 stream km of Class 1 and Class 2 water respectively (WDNR, 2006a). The ULWR has the highest percentage of agriculture of the three sub-watersheds and a soil erosion rate of 2.2 tons per acre per year (WDNR, 1989). The highly permeable soils and low gradient of this watershed make it especially vulnerable to degradation of water resources by poor land use practices because of an increased possibility of groundwater contamination (WDNR, 2001). Nearly half of the Exceptional Resource Waters and one of the Outstanding Resource Waters in the ULWR watershed may be in danger from non-point pollution sources (WDNR, 1989).

Outstanding resource waters currently do not receive wastewater discharges and point source discharges will not be allowed in the future unless the quality of such a discharge meets or exceeds the quality in the receiving water. This classification includes national and state wild and scenic rivers and the highest quality Class I trout streams in the state. Exceptional resource waters have excellent water quality and valued fisheries but may already receive wastewater discharges or may receive future discharges necessary to correct environmental or public health problems. Water quality standards for the LWR watershed can be found in Wisconsin Administrative Code Chapter NR 102 (WDNR pers. comm. 2005, WDNR 2006b).

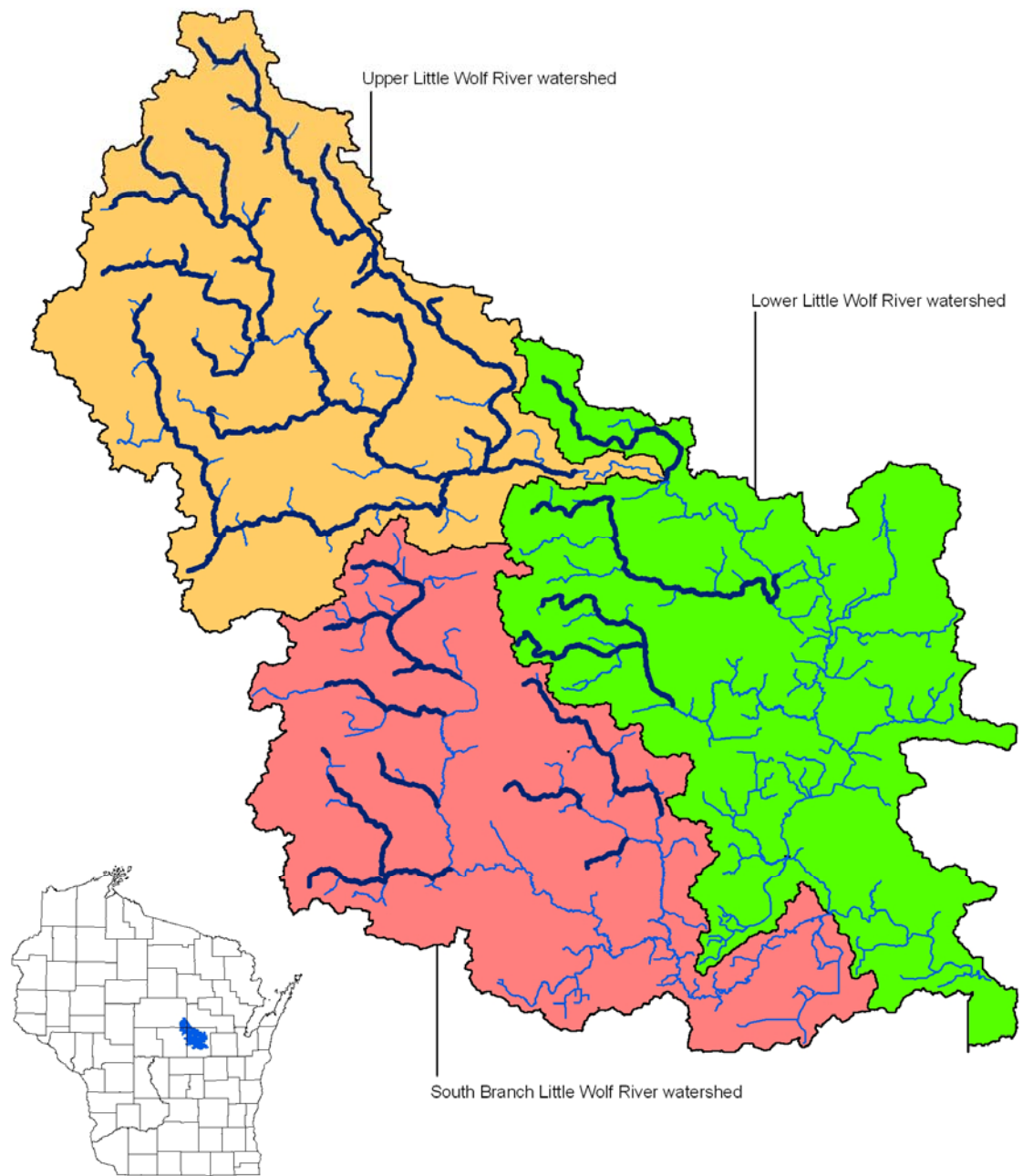


Fig. 1: The Upper Little Wolf River (top), Lower Little Wolf River (right), and South Branch Little Wolf River (bottom) includes reaches in Marathon, Portage, Shawano, and Waupaca Co., Wisconsin. Darker lines represent 2006 WDNR designated trout streams.

The Lower Little Wolf River (LLWR) drains 461 km², includes 56 stream km of the LWR (WDNR, 2005) and 34 and 15 stream km of Class 1 and Class 2 water respectively (WDNR, 2006a). The Wolf River Basin Plan indicated that this watershed receives animal and soil runoff (WDNR, 2001). The LLWR watershed was selected by the WDNR and other groups as a priority watershed in 1995. This selection was made due to the high susceptibility to groundwater pollution in areas with loamy soils that can be amplified by agricultural practices in the watershed (WDNR, 2001).

The South Branch of the Little Wolf River (SBLWR) drains 426 km² and comprises 67 stream km of the LWR (WDNR, 2005). The SBLWR watershed contains 59 and 20 stream km of Class 1 and Class 2 water respectively (WDNR, 2006a). It is not currently a priority watershed, but is experiencing a degradation of trout stream miles due to increased pasturing in the watershed (WDNR, 2001).

The LWR watershed is part of the Central Hardwoods ecoregion and more specifically contains parts of the Central Sand Ridges, Upper Wolf River Stagnation Moraine, and Green Bay Till and Lacustrine Plain ecoregions (Fig. 2). The topology of the area is flat in most areas with the moraines providing the only relief. The watershed contains a mix of coniferous and deciduous forests with patches of wet forest scattered throughout. The soils change from loamy sands in the west to loam in the east (Omernick et al. 2000) (Fig. 3) and this transition of soils creates a noticeable increase in the density of agricultural land cover (Fig. 4).

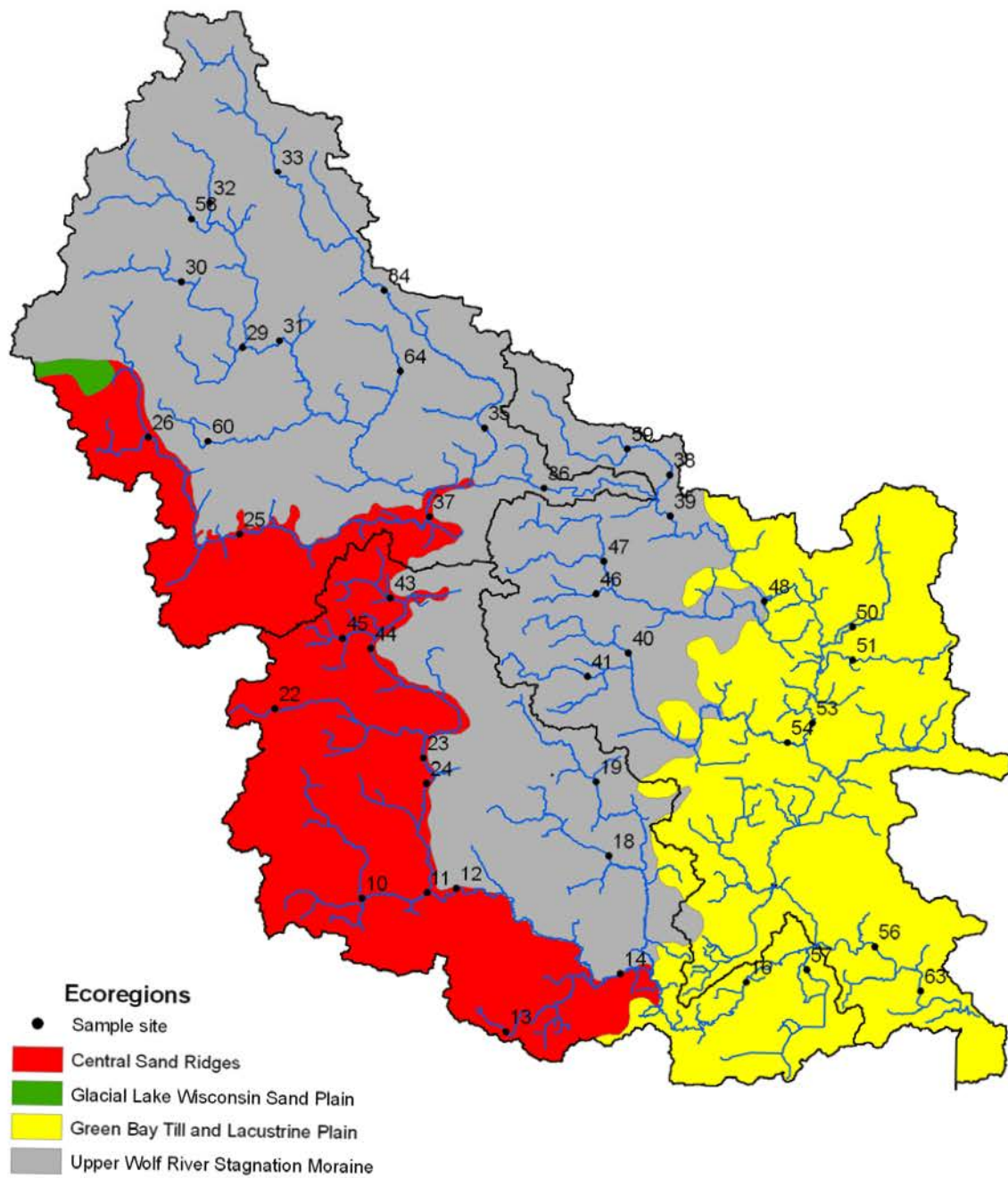


Fig. 2: EPA Level 4 ecoregions of the Little Wolf River watershed in Marathon, Portage, Shawano, and Waupaca Co., Wisconsin from Omernik (1992).

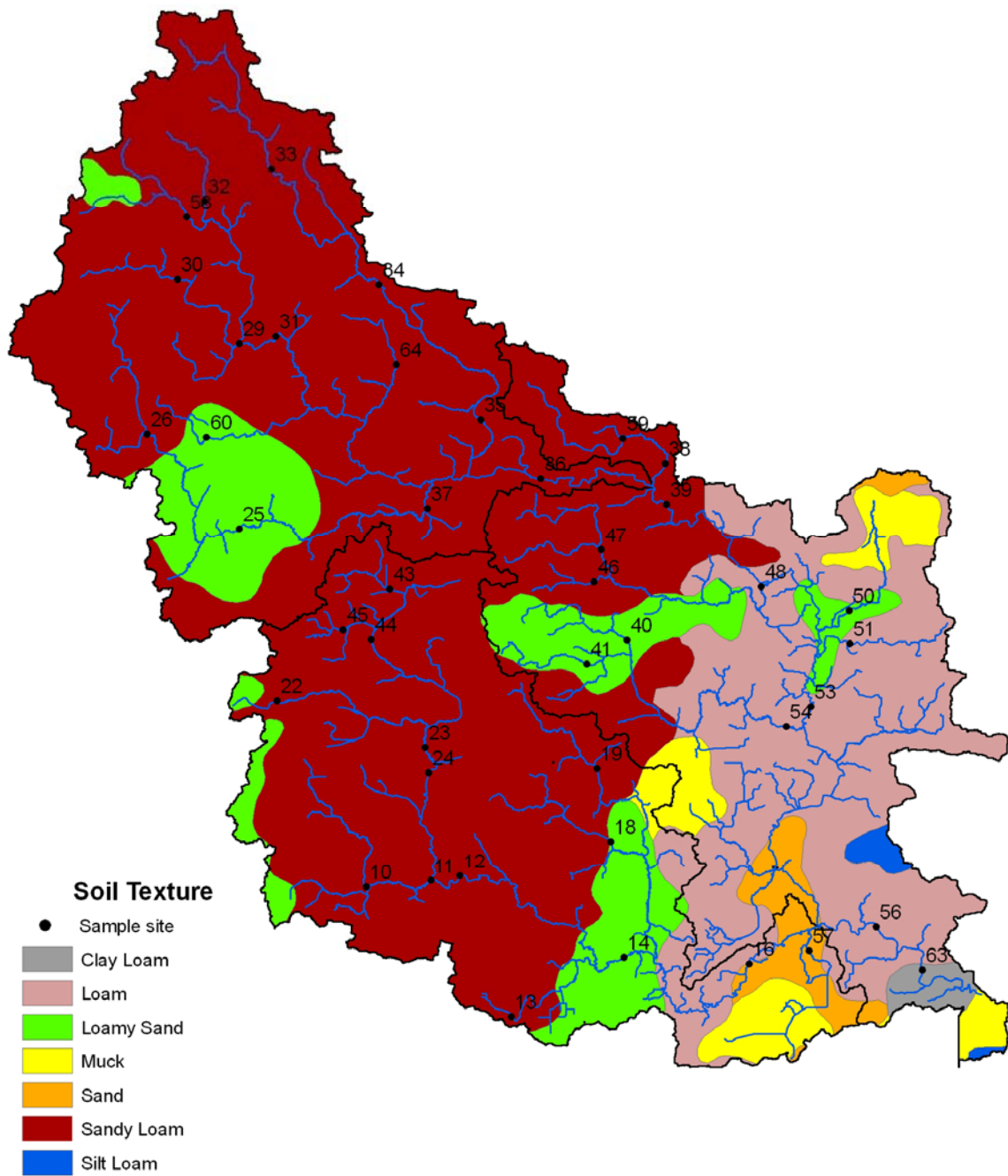


Fig. 3: Soil textures of the Little Wolf River basin in Marathon, Portage, Shawano, and Waupaca Co., Wisconsin. Based on NRCS STATSGO database (1994).

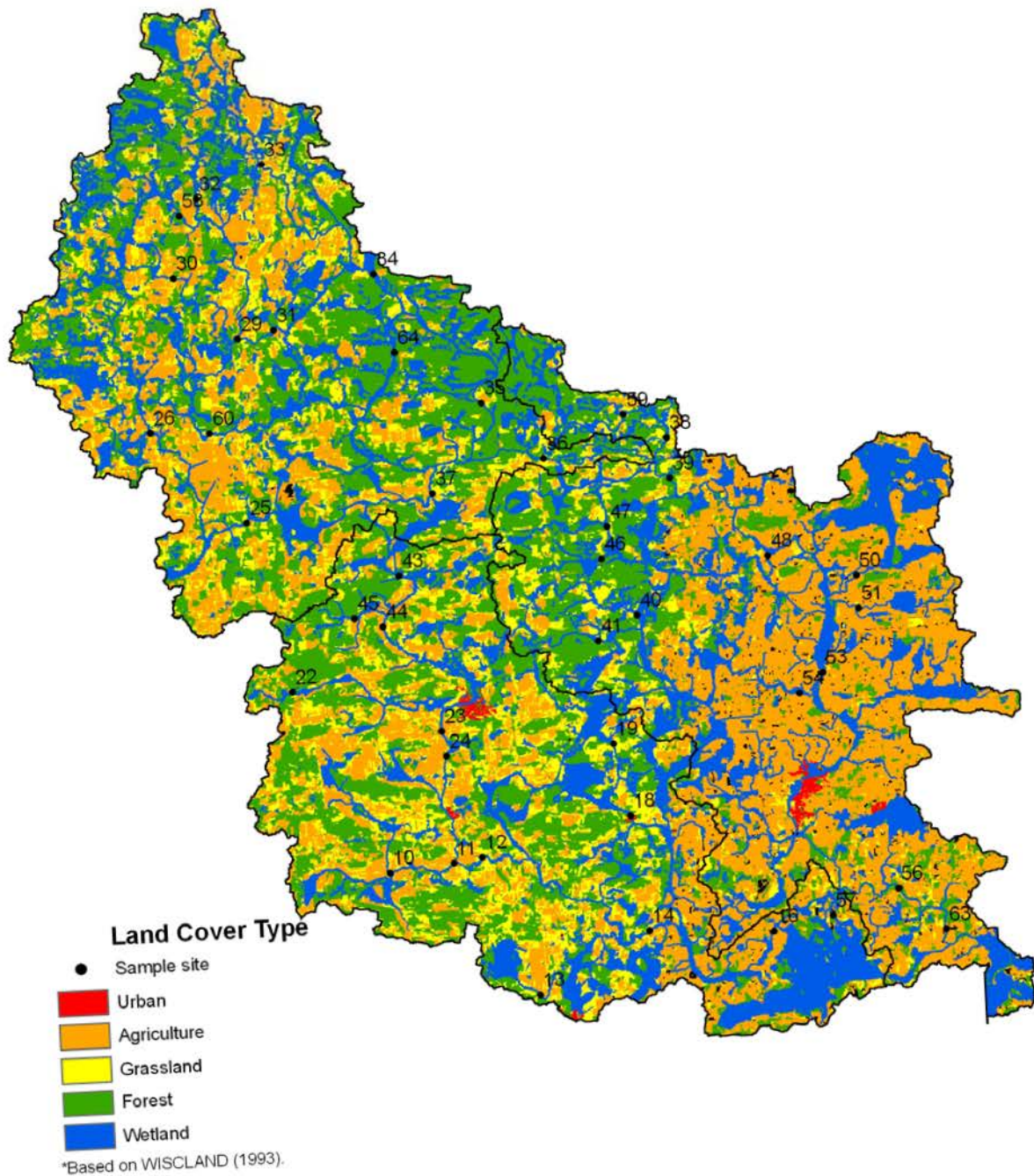


Fig. 4: Land cover in the Little Wolf River watershed in Marathon, Portage, Shawano, Waupaca Co., Wisconsin. Based on WDNR WISCLAND dataset (1993).

Field Procedures

Forty-two sites were sampled in spring 2004 with three replicates taken at each site for a total of 126 samples taken. These sites were selected to include the 24 tributaries and the main branches of the LWR. The sites were located on tributaries upstream of the confluence with the main branches so the water quality of each tributary could be assessed separately. In some cases specific tributaries were not sampled due to lack of flow and appropriate substrate.

Forty of the sites sampled in spring 2004 were resampled in fall 2005 with three replicates taken at each site for a total of 123 samples taken. Site #51 (Beaver Creek) and site #13 (Nichol Creek) were not sampled in fall 2005 due to lack of flow. Site #50 (Shaw Creek) was added to the fall sampling effort because it had suitable flow and was near site #51. Specific sampling dates occurred within 60 days of the 440 degree day C accumulation for warm water streams and within 45 days of the 1050 degree day C accumulation for cold water streams (Hilsenhoff, 1988b). A total of 249 samples were taken during the spring and fall sampling periods.

Field samples were taken following the protocols established by (Hilsenhoff, 1988b) and the DNR Field Procedures Manual (WDNR, 2003). The specific sample locations were composed of gravel, pebbles, and/or small rocks. One sampling data sheet was completed per sample site (three repetitions). The data sheet included site number, location data, substrate data, and a quantitative checklist of factors that might affect water quality. Conductivity, temperature, pH, and dissolved oxygen levels were measured using a YSI Model 600 Sonde Probe. Sketches of repetition locations were included to

facilitate consistency in future sampling efforts. Global Positioning Satellite (GPS) data were collected at each sampling site using a Garmin 76S or Trimble GeoXT GPS unit.

Samples were taken in currents at 0.30 m/s (Hilsenhoff, 1988b) or greater as measured by a March-McBirney Model 201D electric current meter. Samples were collected by placing a 600 micro-meter D-net against the stream bottom and disturbing the substrate directly upstream just far enough to avoid catching substrate in the net. The substrate was disturbed until it was obvious that at least one hundred arthropods with established tolerance values had been netted. Debris too large for the sample jar was removed and scanned for specimens. The netted sample was funneled into a mason jar and preserved in 80% isopropyl alcohol and the solution was changed to 75% alcohol after several days. The D-net was scanned and rinsed with 80% isopropyl alcohol after each use. Each repetition was taken upstream or beside the last to prevent influence from the previous disturbance.

Laboratory Procedures

Sorting was performed following the methods described by Hilsenhoff (1987). Each sample of the three replicate set was treated separately during laboratory processing. The sample was rinsed and distributed evenly in a grid-delineated sorting pan with enough water to saturate the sample debris. The initial sorting grid was selected using a random number table to eliminate bias. The borders of the first grid were delineated and all organisms on or inside of the grid were sorted. All non-plant organisms from the selected grid were placed in a 9cm diameter Petri dish 1/3 full of 80% isopropyl alcohol and BI organisms (those with tolerance values established by Hilsenhoff, 1987) were tallied. The sorting continued until 125+ BI organisms were found, or the entire

sample was sorted. The sorter name, date, and percent sort (sorted grid(s) divided by 15) was recorded on the field sheet under the relative sample ID number.

The sorted debris was discarded, the unsorted debris re-preserved, and the sorted organisms transferred into a receiving container of 80% alcohol. The receiving container was labeled internally and externally with the appropriate repetition information. All non-chironomid larvae were identified to the lowest feasible taxonomic level.

The heads of Chironomidae larvae were dissected, removed, and mounted with the ventrum facing the top of the slide to ease identification. The slides were prepared with CMC-10 mounting medium and allowed to clear for at least five days. A compound binocular microscope was used to identify the chironomidae larvae.

Data Analysis

Sample data were processed using the BUGPROGRAM version 8.01. This program was developed by Dr. Szczytko of the Aquatic Entomology Laboratory at University of Wisconsin Stevens Point to record and analyze macroinvertebrate data for Wisconsin streams and is used extensively by the WDNR and several federal agencies. The program calculates 34 benthic community metrics as well as four different BI's.

The BI Max10 was used to identify the baseline conditions of the LWR watershed because it limits the effects of "sample swamping" where unusually high numbers of individuals stage in specific microhabitats (Hilsenhoff, 1998). The BI Max10 had less variation than the BI and was used in the canonical correlation analysis because it produced more consistent and interpretable results. BI Max10 classification ratings were qualitatively compared with historical data including Hooper's (1993) results and other samples collected throughout the watershed.

The mean tolerance value of all taxa present was reported and tested for correlations and seasonal differences but was excluded from multivariate analysis because it weighs rare and abundant taxa equally by including only one individual from each taxa present (Lillie and Schlessler, 1994). Diversity index values were reported and analyzed with cumulative stream km but not land cover because macroinvertebrate diversity is correlated with the position in the longitudinal stream profile (Vannote, 1983).

All statistical procedures were performed using Statistical Analysis Software (SAS) version 8.2. All variables were tested for normality using the Shapiro-Wilk test and transformed as necessary. All percentage values were Arc Sin standardized (Sokal, 1969). Paired t-tests and Wilcoxon Signed Rank tests were used to compare metrics on a watershed basis between spring and fall. Sites #13, #50, and #51 were excluded from the t-tests because they contained only a single season of observations as discussed above. A correlation matrix containing Pearson and Spearman coefficients was used to analyze correlations between variables (Appendix F). Significant correlations were noted for further investigation.

Macroinvertebrate data from the LWR were split into seasons and sub-watersheds (Upper, Lower, South) and were compared to data from the West Branch of the Wolf River (WBWR) from Weiss (2006). The datasets were comparable because they were collected in the same season by the same people using the same methods. The WBWR flows primarily through the forested Menominee Indian Reservation and is considered an unimpacted watershed. It is part of the same river basin and ecoregion as the LWR and will serve as a reference condition to gauge impairment status of the LWR. A one-way

analysis of variance (ANOVA) was performed to detect differences in BI Max10 means using Statistical Package for the Social Sciences (SPSS) v14. Homogeneity of variance was inspected using the Levene test. The Games-Howell test was performed to detect which sub-watersheds had significantly different BI Max10 values (Toothacker, 1993).

Gradients were calculated for each of the three major branches by dividing the change in elevation by the length of the principle flow path (McCuen, 2004).

Spatial Analysis

Cumulative stream km above each site were calculated using an ESRI ArcGIS network analysis. Hydrography data (1:24,000)(WDNR, 2005) were converted to a Geometric Network and the Utility Network Analyst was used to trace and measure all stream segments upstream from a sample site. Cumulative stream km calculations were compared with macroinvertebrate metrics. A correlation matrix was created to detect trends associated with increased drainage networks (Appendix F).

Land cover data were extracted from the Wiscland dataset created by the WDNR (1993). Wiscland is a 30 meter raster file created in 1993 using LANDSAT imagery. The raster was reclassified from 42 to five classes (urban, agriculture, forest, grassland, and wetland) to minimize the number of variables in the analysis. Land cover percentages were calculated and analyzed at three scales: 1.61 stream km (1 mile) upstream of the site and 100 meters on each side of the site, 1.61 km mile upstream and 250 meters on each side of the site, and all land draining into a site. Land cover within the 100m and 250m scales was calculated using the buffer tool in ArcGIS. The drainage area of each site was calculated with the ArcHydro extension of ArcGIS. These scales

were chosen to investigate the possibility of altering water quality at a local scale independent of upstream conditions.

Canonical Correlation Analysis

The relation between land cover and macroinvertebrate communities was analyzed using a series of canonical correlations. Canonical correlation analysis is a multivariate method that describes the variation present between two sets of variables (Thompson, 1984). The analysis produces two variates that represent variation within their respective variable set. Each variable is labeled with a value between -1 and 1 to represent the strength and direction of correlations between each variable and the variate. The strength of the canonical correlation is represented by the r-squared value between the newly created variates. Six models were created to represent spring and fall data in the 100 meter x 1.61 km system, the 250 meter x 1.61 km system, and the total drainage of each site (Figs. 11-13).

Variable selection is a very important stage of canonical correlation analysis. Increased variable numbers add complexity to the model, make influence of variables difficult to detect, and often contribute little additional explanatory power. Colinearity among variables makes interpretation of results difficult because the same variance is explained by multiple variables. The correlation matrix was carefully examined to eliminate excess variables that were collinear (Tabachnick, 1983).

Two variables were chosen to represent the macroinvertebrate communities. Percent EPT genera and BI Max 10 were found to provide the most stable results. The BI Max 10 modification reduces the impact of abundant taxa and is more responsive to human impacts (Hilsenhoff, 1998). Percent EPT genera represents taxa that have low

tolerance values and are generally intolerant to disturbance and considered a better indication of organic impacts than species or generic richness (Lillie et al. 1998). EPT richness is recommended for use only on very similar sites and should not be used to supplement the BI because it is controlled by additional factors (Hilsenhoff, 1998). EPT richness was used in this analysis because the sites being compared were relatively similar sized streams and had similar geography. Species and generic richness measures and Shannon's Index of Diversity were initially included but later excluded because they were significantly ($p < 0.01$) correlated to cumulative stream miles and not with land cover.

Physical variables included were percent agriculture, forest, wetland, and grassland. Urban land cover was eliminated because it was only present at two sites. Data recorded from the Sonde were not used because they represented a single measurement that varied on a temporal basis.

All sample sites were initially included in the analysis. Significance of correlations and plots of variates were examined to detect outliers. Canonical correlation analysis is sensitive to outliers and their presences create correlations that do not represent the rest of the data (Tabachnick, 1983). Three sites were considered outliers and removed. Site #50 (Shaw Creek) and #51 (Beaver Creek) were removed because they did not fit within the normal distribution of agricultural land cover. Site #57 (White Lake Outlet) was also excluded because it had marginal BI sampling habitat and was an outlier on the wetland distribution curve. Site #13 (Nichol Creek) was also excluded because it lacked fall data. The analysis was rerun for spring and fall data using 39 observations and no outliers were noted.

RESULTS AND DISCUSSION

Eighty-one percent of spring samples in the LWR watershed had BI Max10 ratings of “Very Good” or “Good,” while 83% of fall samples were “Excellent” or “Very Good.” Only 2% of spring sites and 5% of fall sites fell into the “Fair” category (Fig. 5).

Spring BI Max10 scores for the entire LWR watershed ranged from 3.07 (site #59 Spaulding Creek) to 5.60 (site #57 White Lake Outlet) and the mean for all sites was 4.27 (Fig. 6). The spring average classifications for the LWR as a whole and each sub-watershed were “Very Good” (Fig. 8).

Fall BI Max10 scores ranged from 2.65 (site #34 Comet Creek) to 5.69 (site #57 White Lake Outlet) and the mean for all sites was 3.69 (Fig. 6). The fall average classifications for the LWR as a whole and each sub-watershed were “Very Good” (Fig. 9). The mean BI Max10 score for the LWR watershed with spring and fall samples combined was 3.98 which is in the “Very Good” category.

The ULWR watershed had “Excellent” ratings on most of the LWR and “Very Good” ratings on Flume Creek and the majority of Comet Creek in spring. The headwaters of the LWR and Comet Creek (site #33) were rated as “Good” (Fig. 9). Hooper (1993) provided data on site #34 (Comet Creek-Much Rd) and site #35 (Comet Creek-Bergen Rd). Site #34 was rated as “Good” in spring of 1990 and “Very Good” in 2004. Site #35 was rated “Very Good” in both studies.

The majority of the ULWR was ranked as “Excellent” in the fall. Comet and Flume Creeks were ranked as “Very Good” or “Excellent,” while Jackson Creek was

“Very Good.” Site #34 was “Excellent” in both fall of 1990 and 2005. Site #35 was “Very Good” in 1990 and “Excellent” in 2005.

All of the LLWR and most of Whitcomb Creek was classified as “Good” in spring. All of Blake Creek was classified as “Very Good” and Beaver Creek was rated “Fair.” Small streams in this sub-watershed may have reduced water quality ratings based on the observation of Beaver Creek. Further investigation of this sub-watershed may be necessary to fully understand the factors controlling classification reductions in the LWR watershed. The reduction in water quality classification may be caused by the higher percentages of agricultural land cover and clay soils within this sub-watershed.

The LLWR was classified as “Excellent” up to the town of Symco (Site #53) in fall. The next point downstream was below the confluence with the SBLWR so the location where the LWR changes to “Very Good” is unknown. Most of Blake Creek was reduced from “Very Good” in the spring to “Good” in the fall.

Spring classifications in the SBLWR were the most variable of the three sub-watersheds (Fig. 8). Peterson Creek (#10, #11) and parts of the North Branch LWR (#19) were “Excellent.” Sites on the SBLWR upstream of the town of Iola (#43, #44, #45) were “Very Good,” but the site downstream of Iola (#23) was “Fair.” The impoundment 2.5 km upstream of site #23 may be contributing to the reduction in water quality by creating warmer water temperatures and decreased stream velocity. Spring samples from site #23 had the fourth highest abundance of filter feeders. Filter feeders are often found in great abundance below impoundments because of an increase in seston (Wallace, 1980). In the fall most of the SBLWR improved from “Fair” or “Good” to

“Very Good” or “Excellent” compared to the spring. Peterson Creek remained “Excellent,” while the White Lake Outlet (#57) decreased to “Fair.”

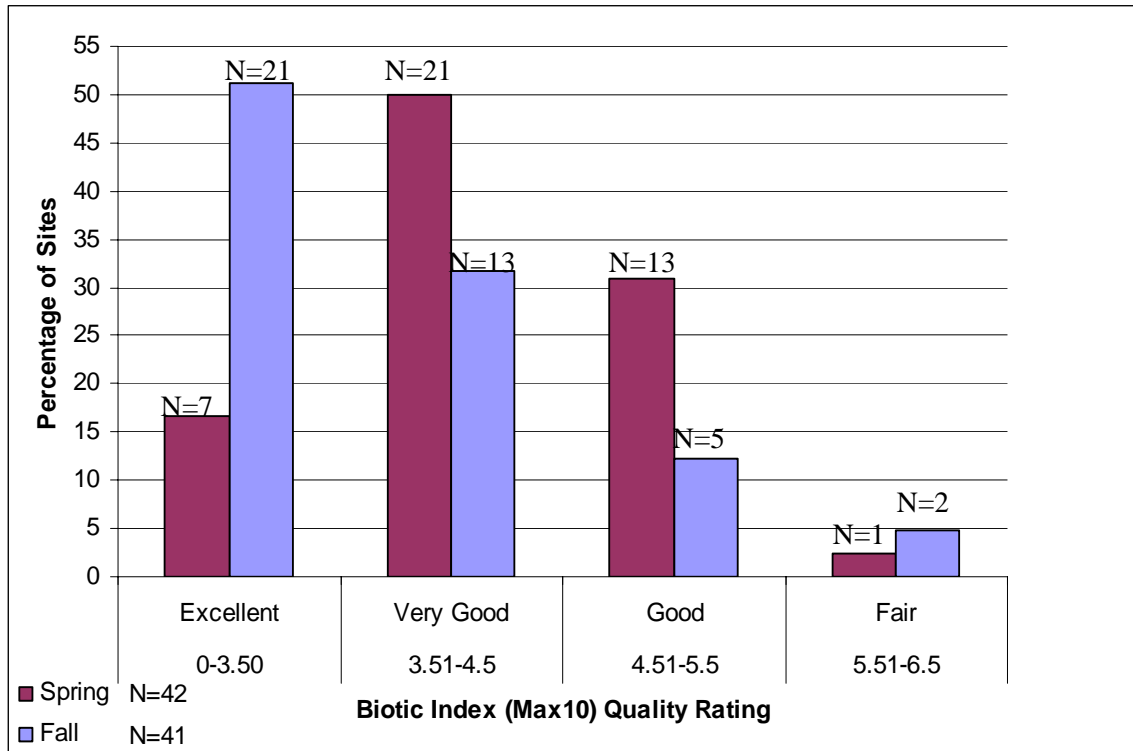


Fig. 5: Percentage of Little Wolf River (Marathon, Portage, Shawano, Waupaca Co., Wisconsin) sites in each BI Max10 quality class by season. Spring N=42. Fall N=41. Classes from Hilsenhoff (1987).

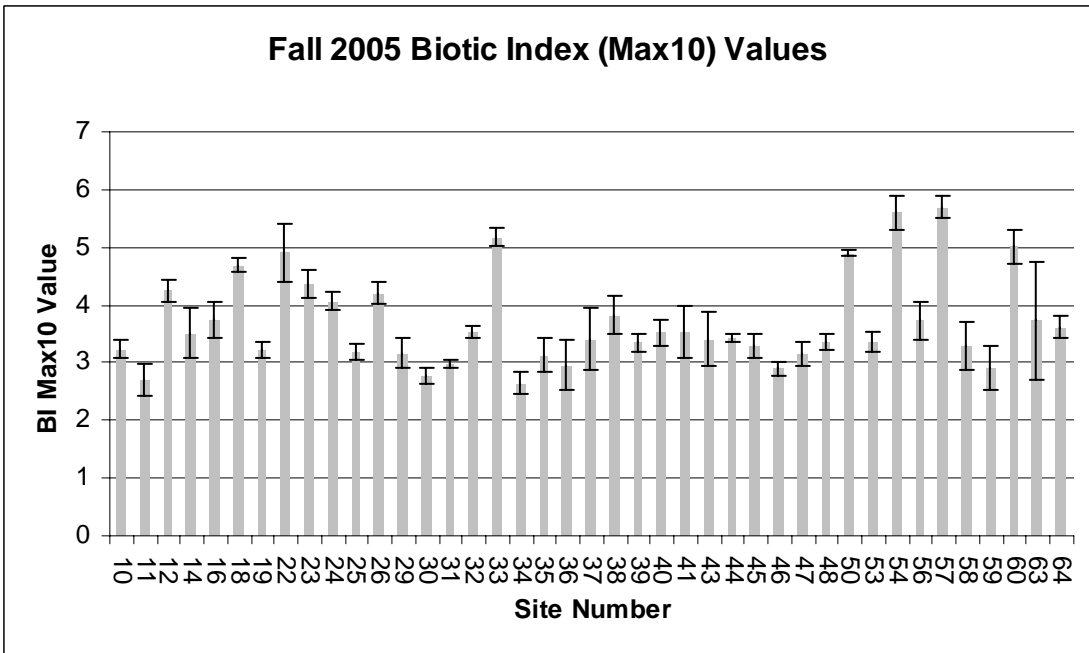
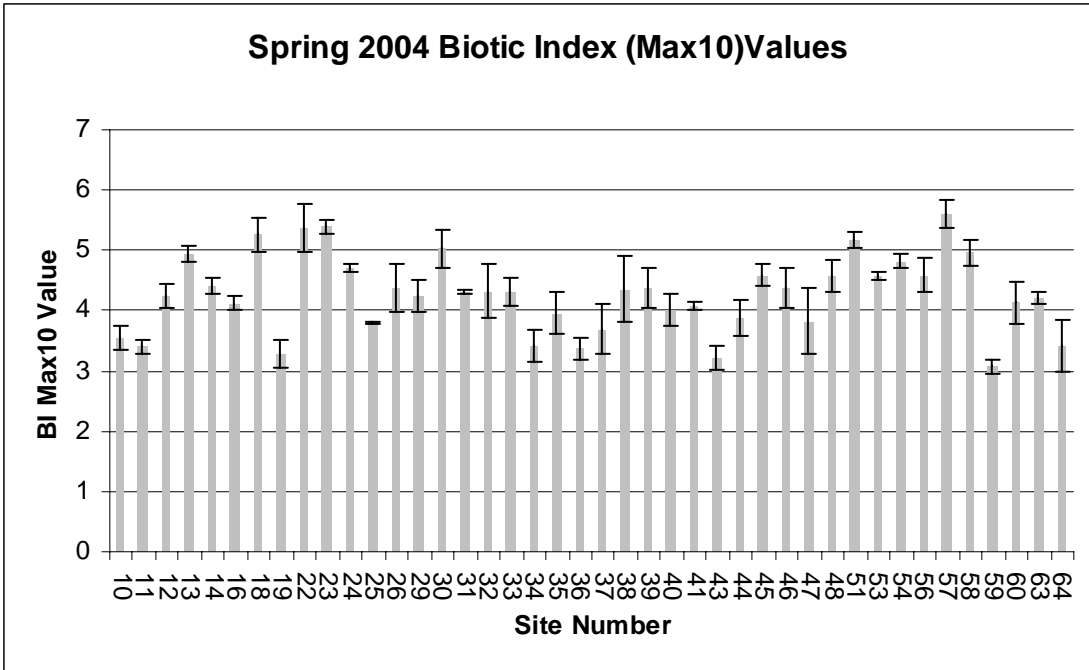


Fig. 6: Biotic index (Max10) values by season and site for the Little Wolf River (Marathon, Portage, Shawano, Waupaca Co., Wisconsin) watershed. Error bars represent one standard deviation. Bars represent the means of 3 replicate sets.

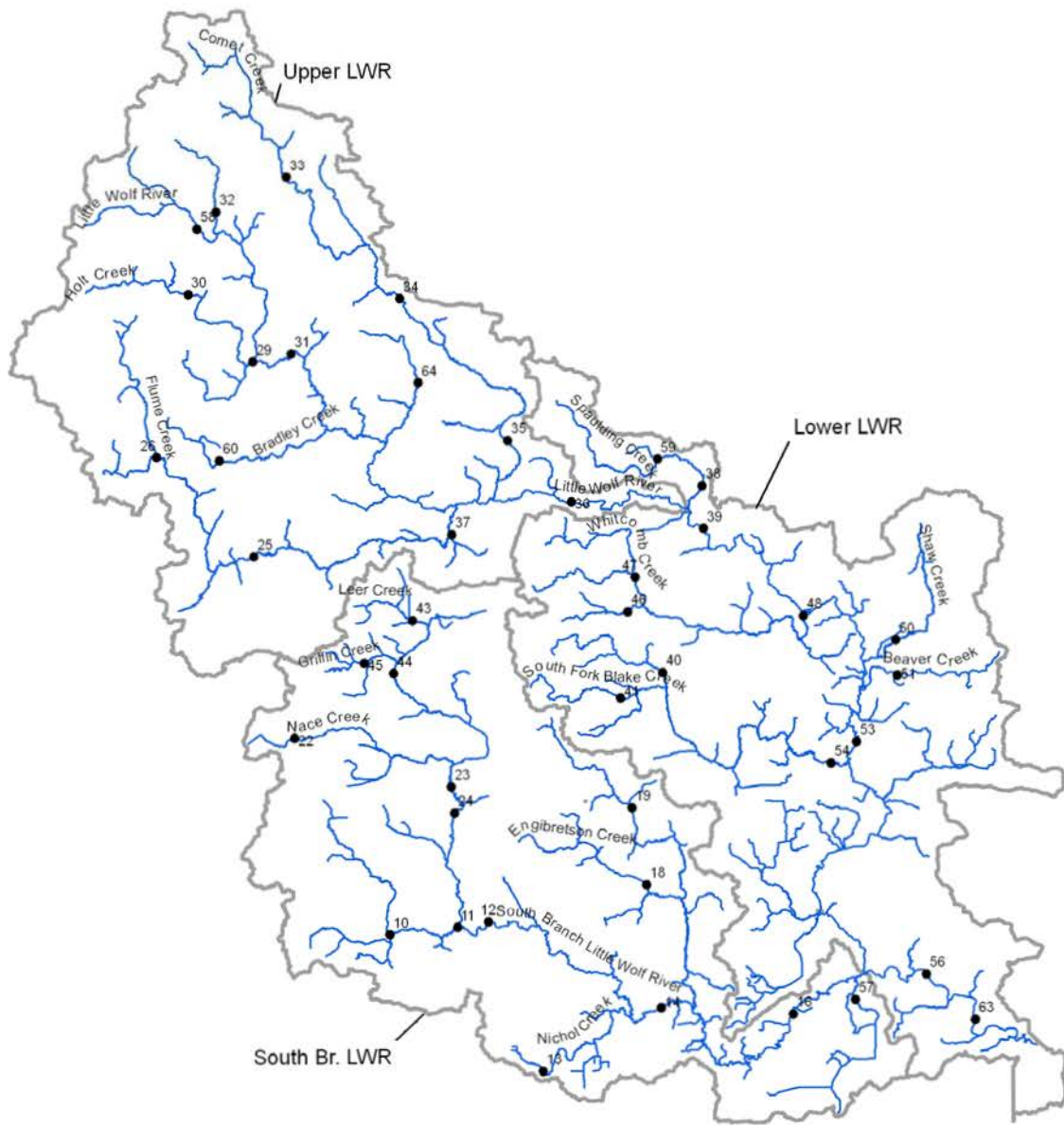


Fig. 7: Tributaries and sample sites in the Little Wolf River watershed in Marathon, Portage, Shawano, Waupaca Co., Wisconsin.

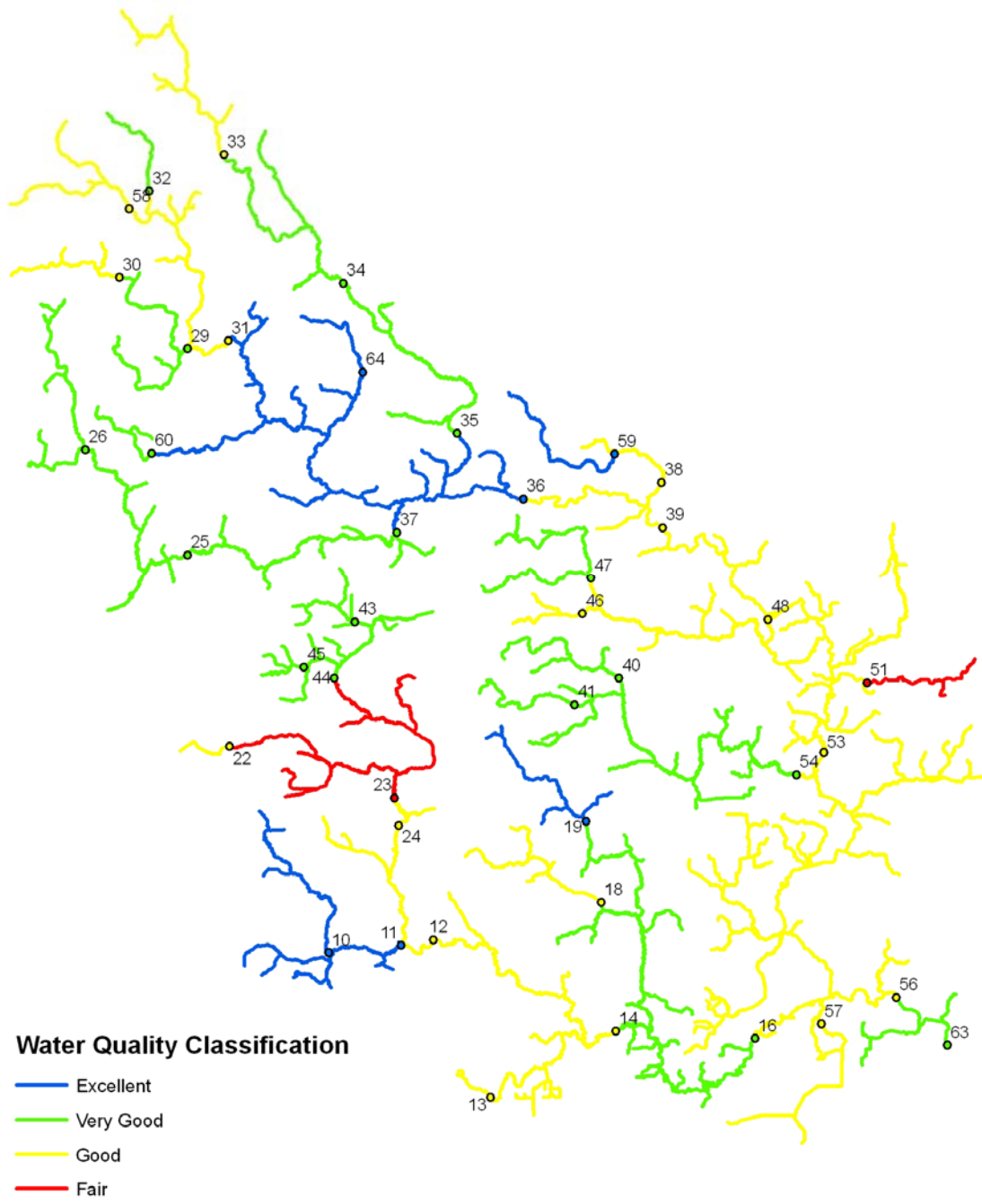


Fig. 8: Spring Biotic Index Max10 water quality classifications of the Little Wolf River watershed in Marathon, Portage, Shawano, Waupaca Co., Wisconsin. Stream rating based on next downstream point.

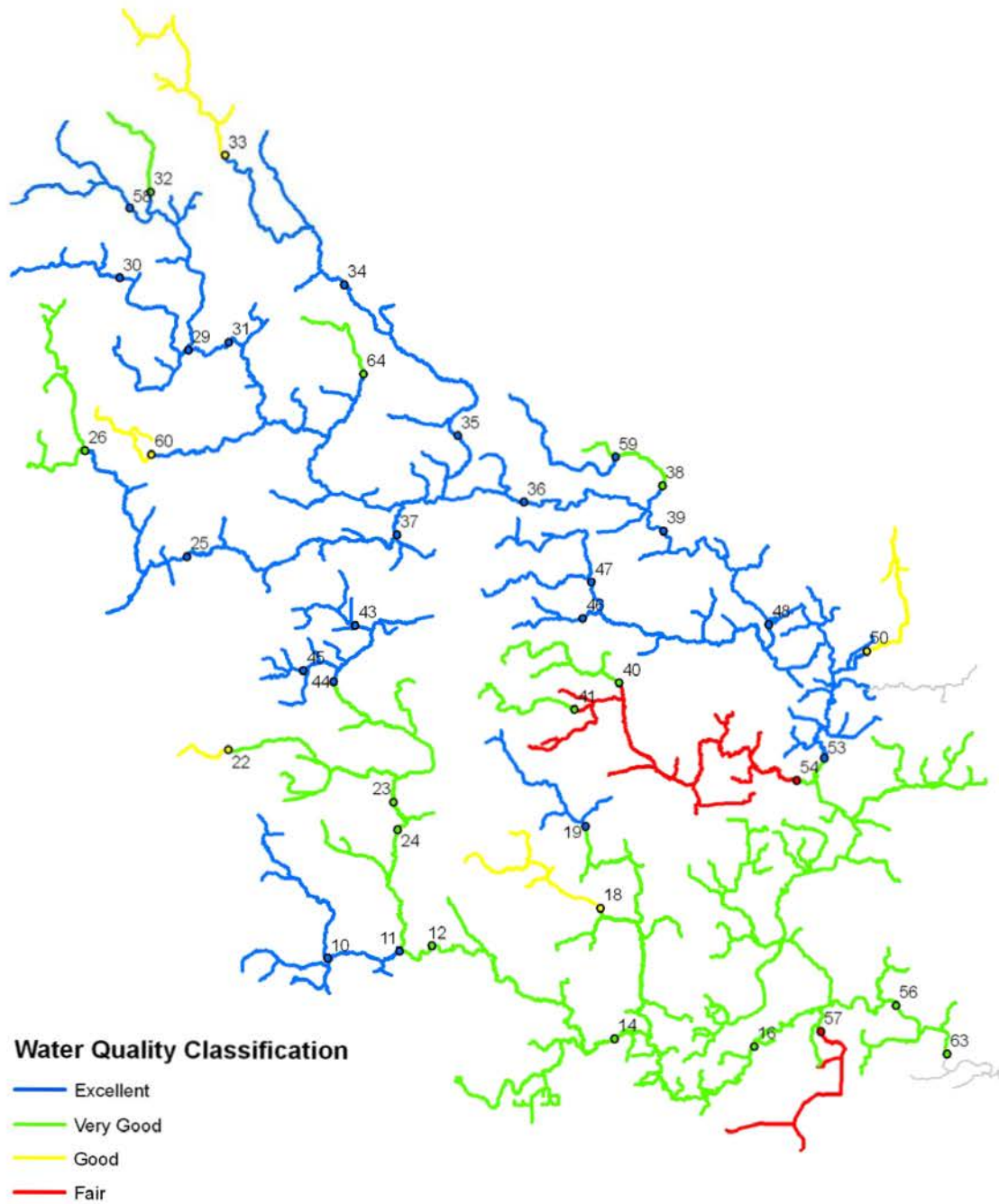


Fig. 9: Fall Biotic Index Max10 water quality classifications of the Little Wolf River watershed in Marathon, Portage, Shawano, Waupaca Co., Wisconsin. Stream rating based on next downstream point.

Historical BI Max10 scores were available for 17 of the sites sampled in this study (Table 2). Historic spring samples were compared to spring 2004 samples, and historic fall samples compared to fall 2005 samples. Twenty-two of the historic samples had the same water quality classification as the 2004/2005 sample of the same season. The samples with different classifications were: South Branch Little Wolf River (19800522), Flume Creek (19991028), Holt Creek (19991101), Whitcomb Creek (19950413), and Little Wolf River (19960502 and 20000425). All samples with different classifications showed an improvement in water quality except for LWR 19960502 and 20000425.

Table 2: Comparison of historic Little Wolf River (Marathon, Portage, Shawano, Waupaca Co., Wisconsin) sites with BI Max10 data to sites sampled in 2004/2005.

Site	Historic Sample Date (Year/Month/Day)	Historic BI Max10	2004 BI Max10	2005 BI Max10	WATERBODY
11	20010913	3.14	3.42	2.70	PETERSON CREEK
12	19800604	4.42	4.25	4.25	S. BR. LWR
16	19801031	4.00	4.13	3.75	S. BR. LWR
19	19800522	3.76	3.29	3.22	S. BR. LWR
19	19801031	3.09	3.29	3.22	S. BR. LWR
24	19800604	5.30	4.72	4.06	S. BR. LWR
24	20010917	4.31	4.72	4.06	S. BR. LWR
25	19991028	5.02	3.80	3.20	FLUME CREEK
29	19991101	3.65	4.24	3.16	HOLT CREEK
36	20000424	3.22	3.37	2.95	LWR
38	20000424	4.22	4.35	3.83	SPAULDING CREEK
39	20000424	3.70	4.38	3.35	LWR
43	20010917	3.37	3.22	3.40	LEER CREEK
45	20010917	3.45	4.58	3.29	GRIFFIN CREEK
47	19950413	5.75	3.84	3.15	WHITCOMB CREEK
48	19790515	3.72	4.59	3.37	WHITCOMB CREEK
48	19791108	3.32	4.59	3.37	WHITCOMB CREEK
48	19951011	3.33	4.59	3.37	WHITCOMB CREEK
48	19960502	3.20	4.59	3.37	WHITCOMB CREEK
50	19790515	5.10	NA	4.90	SHAW CREEK
50	19791108	5.07	NA	4.90	SHAW CREEK
53	19790515	3.99	4.57	3.37	LWR
53	19791108	3.81	4.57	3.37	LWR
53	19951017	3.32	4.57	3.37	LWR
53	19960502	3.06	4.57	3.37	LWR
53	20000425	3.56	4.57	3.37	LWR
54	19790515	5.44	4.82	5.60	BLAKE CREEK
54	19791108	5.06	4.82	5.60	BLAKE CREEK

Spring mean tolerance values in the LWR watershed ranged from 3.24 (site #43 Leer Creek) to 5.68 (site #57 white Lake Outlet) and the mean was 4.24. Fall values ranged from 2.77 (site #11 Peterson Creek) to 5.57 (site #57 White Lake Outlet) and the mean was 3.80. The average mean tolerance value in the LWR watershed for both spring and fall combined was 4.02.

Spring diversity ranged from 4.38 (site #63 LWR) to 0.56 (#51 Beaver Creek). Site #63 represented the largest stream sampled in the LWR system and would be expected to have the highest diversity because it is a 5th order stream (Vannote, 1980). Beaver Creek may have low diversity because it is an agricultural tributary that experiences large amounts of surface runoff and contains elevated chemical levels (Graceffa, 2002). Fall diversity ranged from 4.54 (#64 Jackson Creek) to 1.53 (#48 Leer Creek).

The coefficient of variation (CV) was used to estimate the variability of the 27 metrics used in this study and was calculated by dividing the standard deviation by the mean. The CV was calculated for each 3 replicate set for spring and fall and an average CV was calculated for spring and fall combined for all sites. The CV is unit independent and therefore is a good measure to describe the amount of variation between variables in different units (Lillie et. al, 1993). BI Max10, mean tolerance value (TOLVAL), and BI all had values under 10% in separate and combined seasons (Table 3). Percent collector genera (COL_G), diversity (DIV), generic richness (GR), species richness (SR), percent collector individuals (COL), percent gatherer genera (GAT_G), and percent EPT genera (GR_EPT) were between 10-20% with both seasons combined. The decreased CV values for BI Max10, BI, and TOLVAL make them more precise metrics and less

impacted by background variation. Hooper (1993) also found enumeration metrics more precise than percentage and ratio metrics.

Table 3: Coefficient of Variation (%) by metric and season for the Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin).

	Spring	Fall	Combine
BI10	5.7	7.3	6.5
TOLVAL	6.3	7.5	6.9
BI	7.9	7.8	7.9
COL_G	9.2	12.5	10.8
DIV	12.7	11.4	12.1
GR	14.8	15.7	15.2
SR	15.2	15.3	15.2
COL	14.7	18.0	16.3
GAT_G	13.2	19.7	16.4
GR_EPT	23.0	14.2	18.6
EPT_GENERA	27.7	18.8	23.3
FIL_G	23.9	24.7	24.3
SCR_G	26.1	25.8	26.0
GAT	23.8	29.7	26.7
COUNT_EPT	37.5	25.0	31.3
SCR_COL_G	30.6	32.9	31.8
HBI_EPT	39.5	25.3	32.5
EPT_COUNT	38.5	31.5	35.1
SCR_GAT_G	32.7	38.3	35.5
SCR	41.7	33.9	37.8
SCR_FIL_G	39.8	37.3	38.6
FIL	40.8	37.9	39.4
SHR_G	44.3	42.1	43.2
SCR_COL	54.7	47.2	51.0
SHR	55.0	56.4	55.7
SCR_GAT	59.2	54.4	56.8
SCR_FIL	63.2	55.1	59.1

The results of the paired t-tests indicated there were no significant differences in species richness ($p=0.32$), generic richness ($p=0.48$), or diversity ($p=0.21$) between spring and fall. The BI was significantly higher in the spring ($p<0.01$) (poorer water quality), however the water quality classification remained as “Very Good” regardless of season. Both percent EPT individuals and genera (Fig. 10) were significantly higher ($p<0.01$) in the fall.

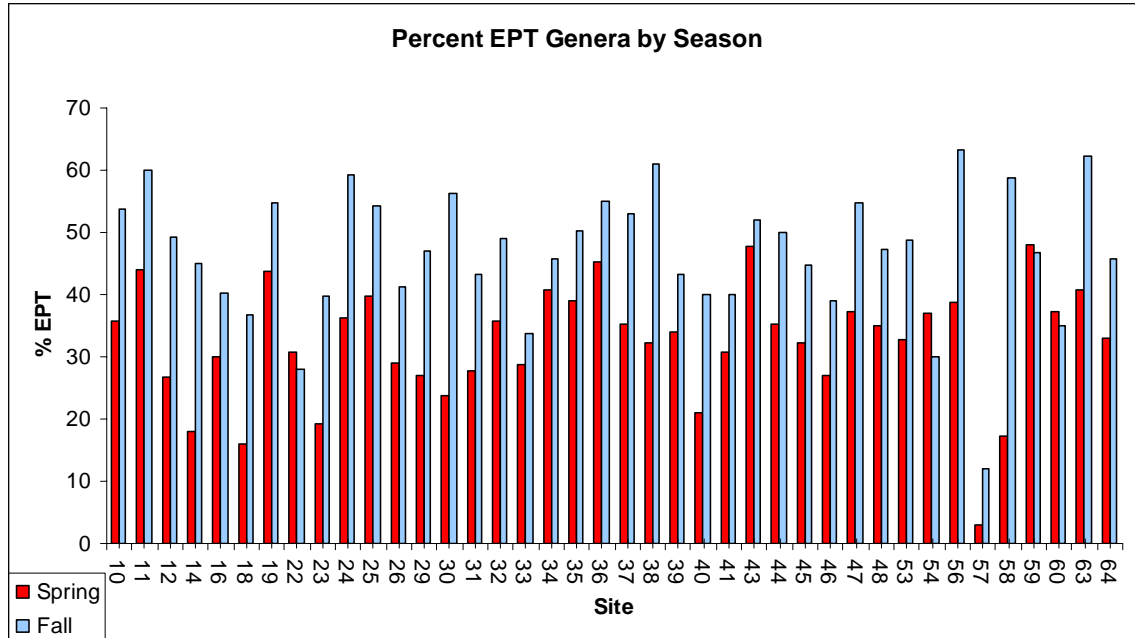


Fig. 10: Percent EPT genera comparison by site and season in the Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin).

Hilsenhoff (1998) also found seasonal differences in EPT abundance. The difference in BI scores in this study can likely be attributed to the decrease of EPT genera and increase of Chironomidae larvae in the spring. The fall samples contained 2680 Chironomidae larvae compared to 6991 in the spring. The average tolerance value for the family Chironomidae is 6.3, and the average tolerance value for the EPT orders is 3.5. The seasonal differences noted in this study show the importance of using additional information to assess streams. Water quality in the LWR watershed would appear to be improving had EPT and Chironomidae abundances been ignored.

Spring samples had significantly higher percentages of gatherers ($p < 0.01$), and fall samples had significantly more filter feeders ($p = 0.05$) and scrapers ($p = 0.03$). Shredders were equal among both seasons. These results support the logic presented by Vannote et al. (1980) that 1-3 order streams display temporal species replacement to

maximize the consumption of available energy and carbon. No apparent spatial progression of functional feeding groups was evident in the LWR basin which was probably due to the limited sampling sites (4) on stream reaches greater than third order. The River Continuum Concept (Vannote et al. 1980) suggests that the transition between heterotrophic and autotrophic reaches normally occurs between the third and fourth stream order.

The ULWR had the highest stream gradient ($105\text{m}/52\text{km} = 2.01 \text{ m/km}$) of the LWR sub-watersheds, and had the lowest mean BI Max10 scores in both spring and fall. The SBLWR had a gradient of 0.94 m/km ($63\text{m}/67\text{km}$) and had the highest mean BI Max 10 scores in both spring and fall. The LLWR had the lowest gradient ($37\text{m}/56\text{km} = 0.67 \text{ m/km}$) and had the second highest mean BI Max10 spring and fall (Table 2). The effects of gradient were not able to be separated from the effects of land cover using the results generated from this study.

Canonical Correlation Analysis

The canonical correlation analysis reflected the seasonal differences in macroinvertebrate communities. It is important to note these correlations represent headwater streams with similar proportions of land cover. Significant models were produced at the spring 100 meter zone ($p=0.03$) (Fig. 11) and the spring 250 meter zone ($p=0.04$) (Fig. 12). The 250 meter zone explained 34% of the variation between the landscape and the biota and the 100 meter zone explained 32%. The 250 meter model correlated sites with high BI max 10 (0.582) to sites with high percentage of agriculture

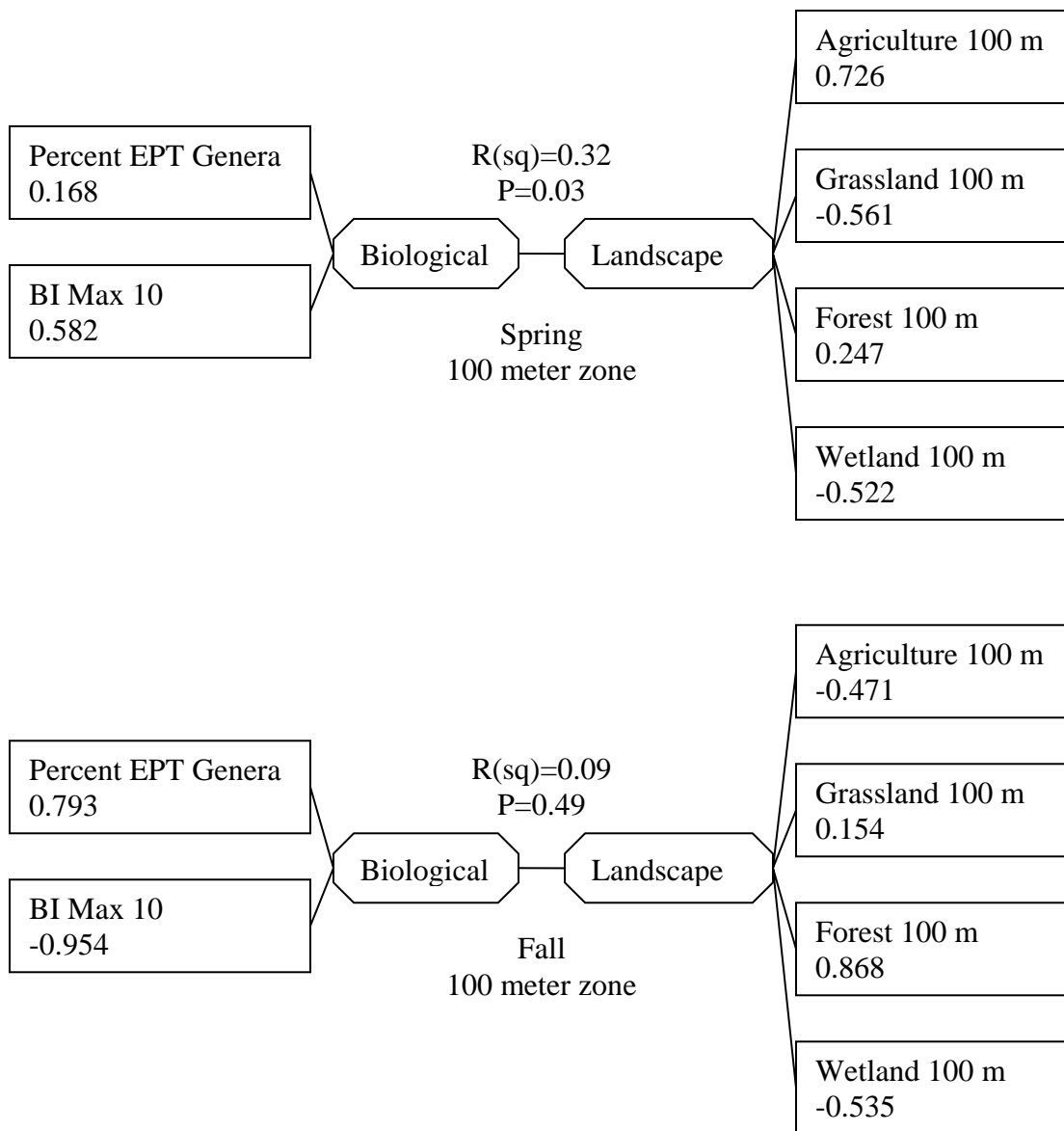


Fig. 11: Canonical correlation models for the Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin) at the 100 meter zone. Models significant if ($p < 0.05$).

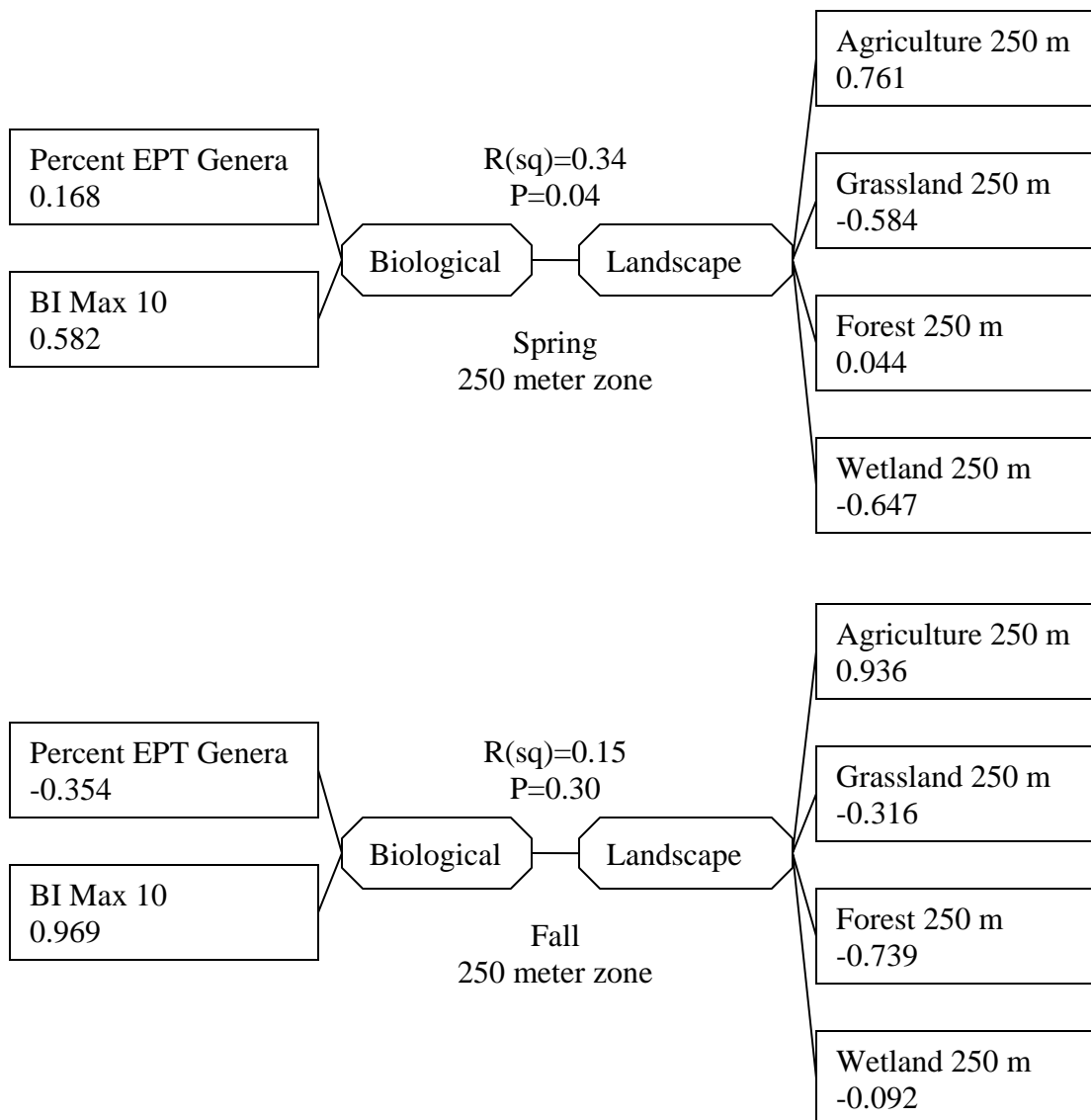


Fig. 12: Canonical correlations at the 250 meter zone for the Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin). Models significant if ($p < 0.05$).

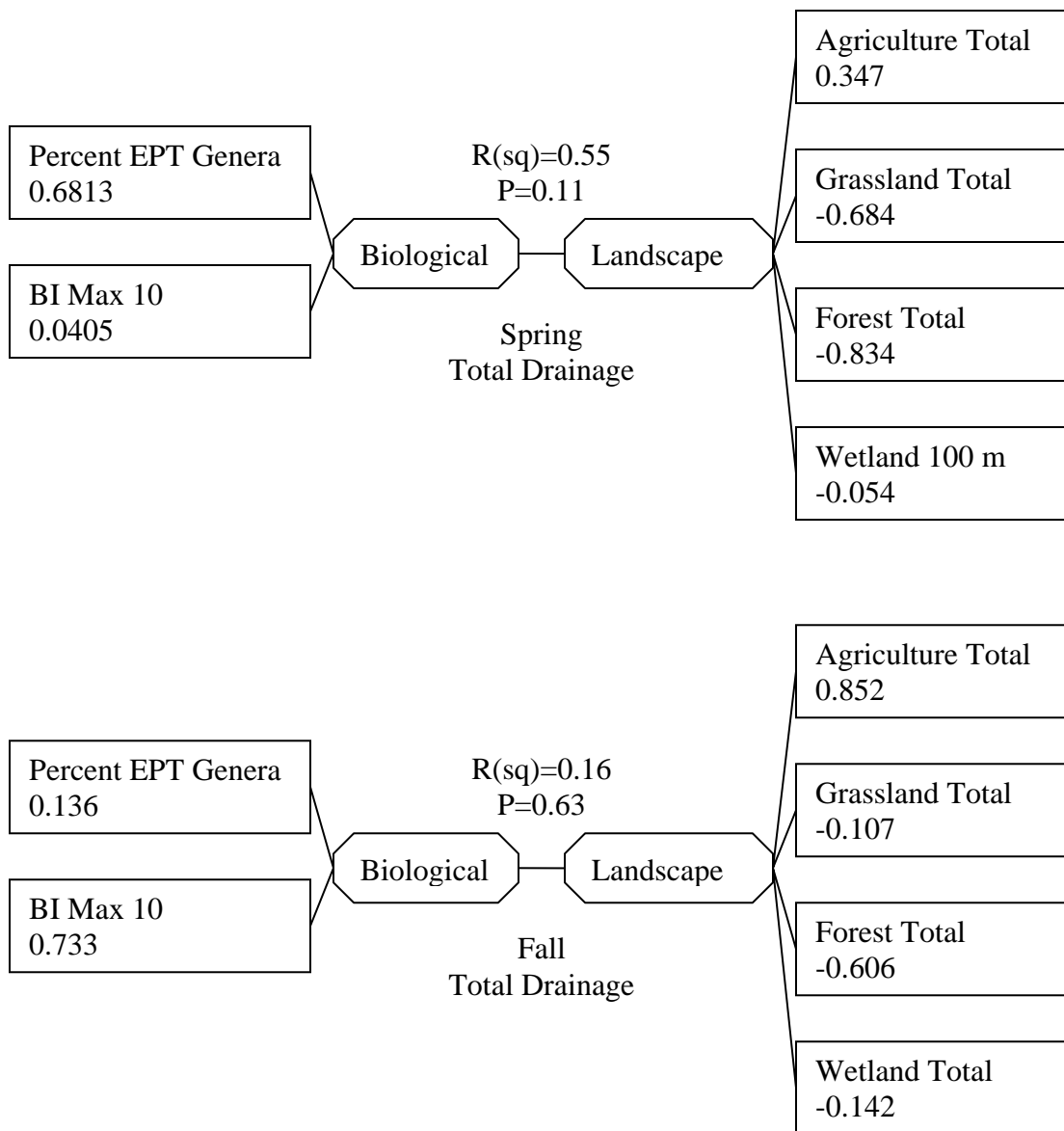


Fig. 13: Canonical correlations at the total drainage scale for the Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin). Models significant if ($p < 0.05$).

(0.761), low grassland (-0.584), and low wetland (-0.647). Percent EPT genera (0.168) and percent forest (0.044) provided little explanatory power in the relationship between biological and landscape variates. The 100 and 250 meter zones may have been more correlated with the landscape because the majority of samples were collected in small headwater streams that are strongly connected to riparian conditions. Land use practices that alter riparian cover and reduce terrestrial carbon sources can have adverse impacts on macroinvertebrate communities (Karr and Schlosser, 1977). Canopy shading reduces autotrophic production and increases the need for terrestrial carbon (allochthonous) inputs to low order streams (Vannote, 1980). Shredders process CPOM from terrestrial sources and create FPOM that becomes a food source for collectors (Cummins et. al., 1989, Short and Maslin, 1977).

No significant correlations were found in the spring total drainage (Fig. 13) or any fall models. Weigel (2003) found macroinvertebrates in the north central hardwood ecoregion were more correlated with land cover on a watershed scale than local scale if sites exhibited a wide range of forest cover. Local scales became more influential when there was little variation in forest cover. This may not apply to the LWR because the percent forest in the total drainage scale ranged from 6% to 73% with a median of 36%, but the lack of agricultural diversity may have impacted the correlations. The percent agriculture on a drainage scale of the 39 sites used in statistical analysis ranged from 5% to 35% with a median of 22%. Beaver Creek #51 and Shaw Creek #50 had very high percentages of local agriculture, but they were statistical outliers based on an analysis of normality (Fig. 14).

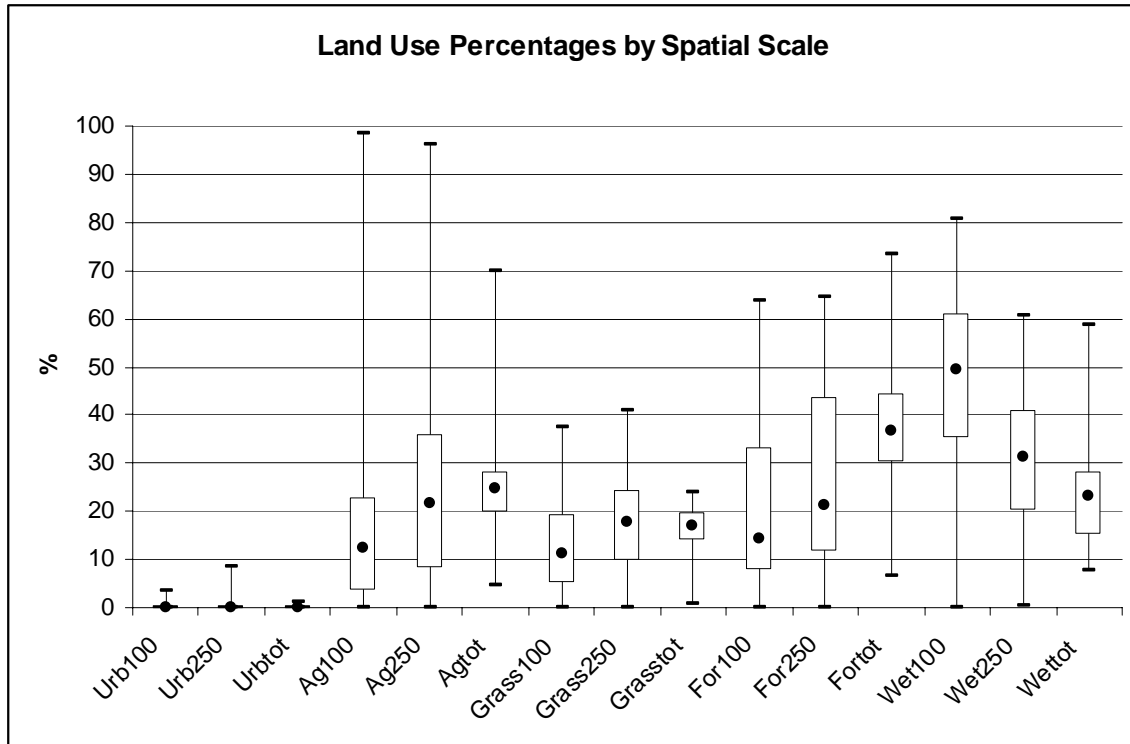


Fig. 14: Plots of land cover distributions for all points sampled at each scale in the Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin). Dots represent mean values, box represents 25th and 75th quartiles, lines represent minimum and maximum values.

Spring samples might have been highly correlated with land cover because that is when agricultural activity is highest. Snow melt and heavy spring rains may provide a water quality connection between surface water and stream conditions. The lack of correlation between fall samples and land cover may be a reflection of the stable nature of groundwater fed systems that dominate the watershed.

Direct comparisons between land cover and macroinvertebrates may not be the best way to gauge organic impairments. Land cover has an indirect effect on macroinvertebrates with the exceptions of direct deposition of soil and plant material. Land cover has a pronounced effect on total dissolved solids, alkalinity, nitrate, and phosphorus (Johnson et. al. 1997) and macroinvertebrate abundance have been correlated

with physical water variables (Hilsenhoff, 1977). Attempting to model land cover impacts without including physical measurements (temp, pH, DO, etc.) removes a vital link to the biota and provides weaker models that can be more difficult to explain. These weak correlations suggest either the Little Wolf River system is not impacted by land cover continuously throughout the year, or there was not enough diversity in land cover to explain variation at sample sites.

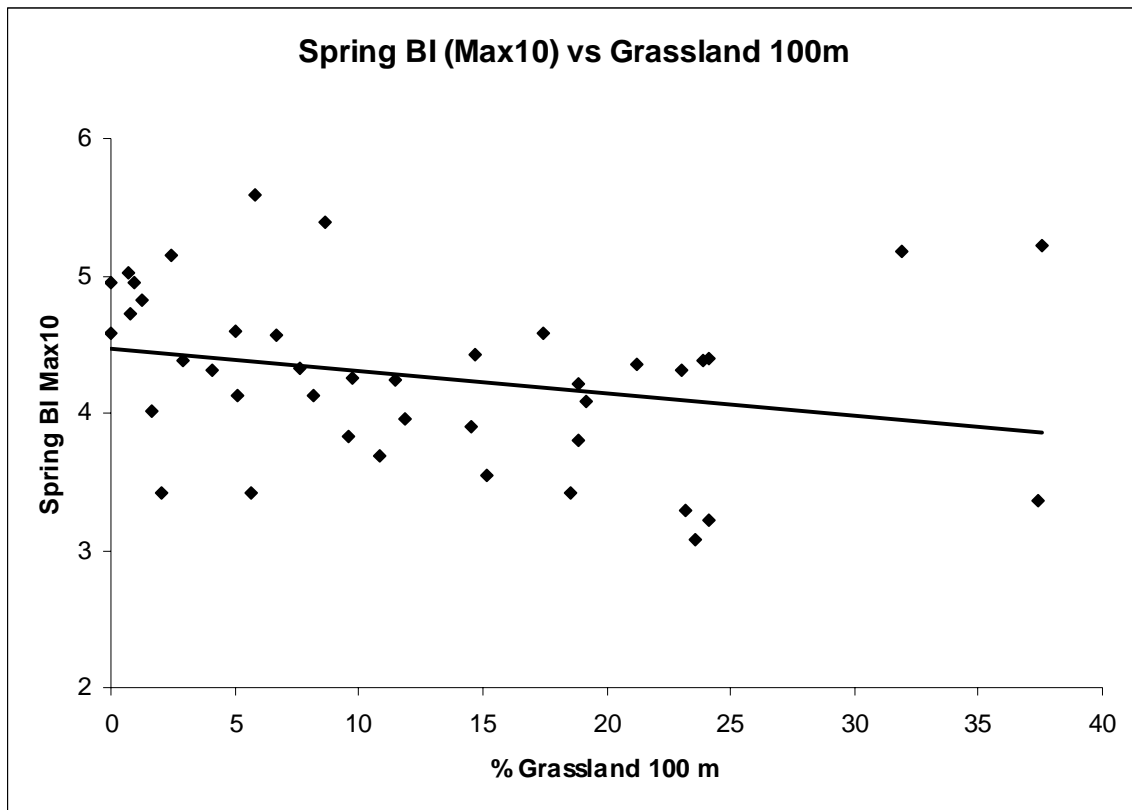


Fig. 15: Spring BI Max10 scores vs. percentage grassland within 100 stream meters in the Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin). Significant at the ($p < 0.05$) level.

The lack of significant correlations between individual land cover types and macroinvertebrate communities provides evidence that land cover alone may not be adequate to describe biological communities or the potential impact on water quality. Pearson correlation coefficients revealed the only significant correlation between land

cover and macroinvertebrates in this study was the negative relationship between spring BI Max10 scores and percent grassland within 100 (Pearson= -0.358, p=0.025) (Fig. 15) and 250 (Pearson=-0.328, p=0.042) meters.

Distinguishing between land cover and land use may have increased explanatory power of the model. The Wiscland dataset provided information on the land cover types, but did not provide information on actual land use practices. A more detailed analysis of conservation practices present in the area may have strengthened the correlation between the landscape and biological communities.

Predicting macroinvertebrate communities with land cover at the 100m and 250m scales may have been improved with more current data. Land cover within these scales may have changed in the 13 years since Wiscland was created. Groundwater with residence times similar to the age of the dataset may provide a correlation at larger scales, but the residence time of groundwater at the 100 and 250m scales is unknown.

Delayed entry of groundwater can also make large scale land cover impacts difficult to detect. Streams fed by groundwater are a blend of water representing current conditions along with historic conditions. The Tomorrow/Waupaca River watershed is adjacent to the Little Wolf River watershed and has an average groundwater lag time of 28 years, but lag times up to 50 years were also found (Guldan, 2004).

Land cover data from 1950 predicted EPT abundance more accurately than current data in a North Carolina watershed (Harding et al. 1998). This suggests land cover changes in close proximity to streams will be reflected faster than more remote practices because of decreased travel time. Predicting BI scores using a total drainage

scale in the LWR may be more effective in the future by using older land cover data or a mixture of data depending on the distance to surface water.

The low slope and soil texture of the watershed likely lessen the effect land cover has on the river system. The sandy soils are not optimal for the intense row cropping practices that contribute to soil erosion and groundwater contamination. This may lead to an increase in forage crops that are more efficient in stabilizing soil. The high permeability and low slope of the watershed is more likely to produce interflow or subsurface storm flow. Neither of these is known for direct deposition of soil to the stream. The clay soils of the watershed would be a more likely candidate for overland flow because they have decreased permeability and represent a large portion of agriculture in the watershed. Site #51 (Beaver Creek) was the most intensive agricultural site in the watershed. It had the second highest spring BI value (5.75) and did not have flow in the fall. It appeared to be an ephemeral stream that was fed primarily by spring rain and snow melt. The eastern third of the watershed contains many such streams but they were not sampled thoroughly enough to be a factor in this analysis.

The quality of land cover data may have weakened correlations as well. The resolution of the data used in this study was rather coarse with each cell representing 900 m². This adequately describes large plots of forests and most agricultural fields, but may not be suitable for assessing riparian vegetation. Studies investigating small streams highly connected to the landscape should have the highest resolution possible. The division of land cover classes also presented an issue. There were originally 42 classes of land cover, but they were condensed to 5 because of data quality issues and the concern of excess variables. Land class reduction was justified for a number of reasons.

Agricultural sub-classifications do not account for crop rotation. Verification of the dataset showed forest sub-classifications to be only 75% accurate. Grassland classifications were found to be 71% accurate and were most often misclassified as forage crops (WDNR, 1999). The variability in the grassland classification likely contributed confusion to the correlation models. Grouping grassland and forage crops into one class is not a feasible solution because cropland reserve program (CRP) grasslands will generally have a ten year duration, while standard forage crops may be part of a row crop rotation scheme. This issue presents a major limitation for land cover studies on a large scale.

Higher resolution land cover data were acquired from the East and North Central Planning Commissions from the year 2000 or newer. This dataset was classified from an urban planning aspect and the non-urban landscapes were too general for this project. There were inconsistent distinctions between wetlands and forested areas. Future land cover comparisons would be best made with hand classified data from aerial photos and field verified, but this becomes very time consuming on a large scale.

Longitudinal Trends

Cumulative stream km above each site were calculated to investigate changes that may be occurring as streams increase in size. Levels of chemical constituents in other central Wisconsin streams tend to be highly variable in headwater systems and show reduced variation after 50 cumulative stream km (Guldan, 2004). This suggests that after 50 stream km the stream becomes a running average of its inputs and its connection with the landscape is reduced. The reduction in BI Max10 variability with increasing stream size was investigated because the BI has been correlated with nitrogen, phosphorus, and

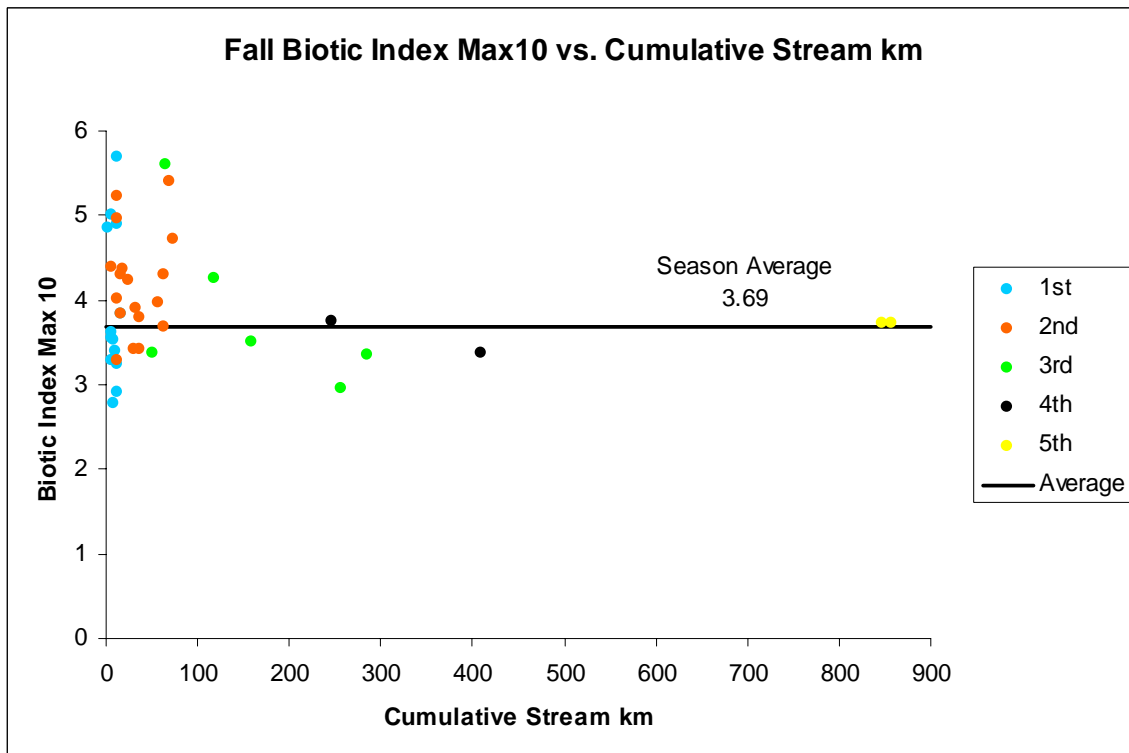
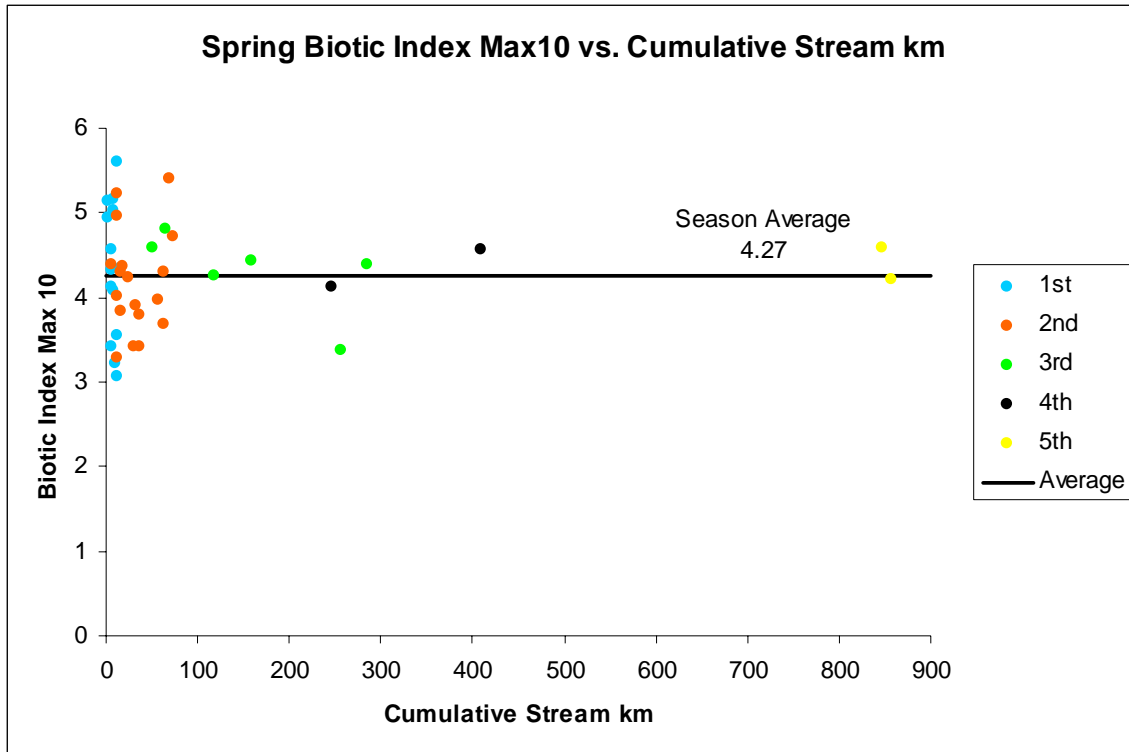


Fig. 16: Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin) Biotic Index Max10 values by season and cumulative stream km. Colors represent stream orders.

chlorides throughout Wisconsin (Hilsenhoff, 1977). The BI Max10 exhibited a reduction in variability around 250 stream km (Fig. 16). It is interesting to note that individual sites after the 250 km mark were generally close or equal to the mean value of the watershed for that season. These results should be viewed with caution due to the lack of sampling sites in the larger stream reaches.

The BI Max10 was not significantly correlated with cumulative stream km. Decreasing water quality would be found in the largest stream reaches if there was a correlation present. The lack of correlation shows that small headwater streams are highly variable in water quality and more sensitive to riparian conditions.

Spring richness and diversity measures were significantly ($p < 0.01$) correlated with cumulative stream meters. The river continuum concept suggests highest diversity will be found in stream orders 3-5 within a stream network (Vannote, 1980). Minshall et al. (1985) found species richness was highest in fourth order streams in spring and eighth order streams in fall. The LWR spring richness and diversity measures were significantly correlated with stream km with the highest order stream sections having higher diversity, however there was high variability in the lower stream orders (Fig. 17). Many samples in the upper reaches (lower stream orders) of the stream network also had high diversity as well. Jackson Creek (Site #64) had 5.2 stream km above it and had a fall diversity index of 4.54. Bradley Creek (Site #60) had 6.2 stream km above it and had a fall diversity index of 4.35. Holt Creek (Site #29) had the second highest spring diversity value (4.29) and it had 24.3 stream km above it.

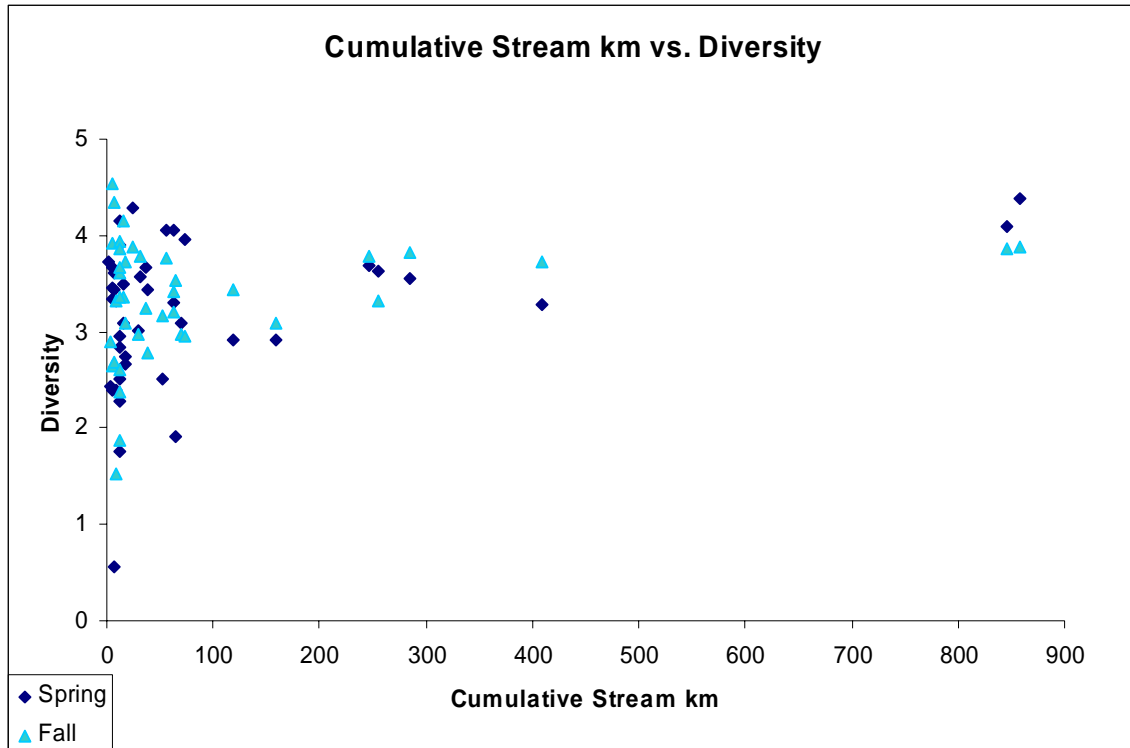


Fig. 17: Comparison of diversity, cumulative stream km, and season in the Little Wolf River watershed (Marathon, Portage, Shawano, Waupaca Co., Wisconsin).

Daily temperature variations may explain the increased diversity in these small streams. Groundwater dominated headwater streams and very large streams have lower daily temperature fluctuations and will be inhabited by stenothermic organisms (Vannote et al., 1980). The small streams in the LWR system with high diversity may not be groundwater dominated and may have higher daily variations in temperature, allowing for a wider range of organisms to inhabit them.

Substrate diversity may be a limiting factor for macroinvertebrate diversity. Streams with higher substrate diversity will provide suitable habitat for a wider range of organisms (Vannote, 1980). Substrate at Jackson Creek (Site #64) was mainly rubble and gravel, while most other first order sites were gravel and sand. The increased substrate size and diversity may have increased the macroinvertebrate diversity at that site.

EPT measures were also significantly ($p < 0.02$) correlated with cumulative stream meters. Hilsenhoff (1998) compared a first and third order stream with similar land cover and geology and found more EPT species in the larger stream. The use of cumulative stream km is beneficial to the analysis of macroinvertebrate communities because it provides a finer resolution of changes taking place. Traditionally stream km calculations were cumbersome and time consuming, but these measurements can now be acquired rather easily using ArcGIS (Appendix E). Future studies will be able to sample evenly throughout the river profile to gain more insight into the behavior of macroinvertebrate communities with increasing stream size.

Comparison with West Branch Wolf River

The comparison between the Little Wolf River and the West Branch Wolf River in Menominee County indicated all three LWR sub-watersheds had significantly ($p < 0.01$) higher BI Max10 means than the WBWR in both spring and fall (Table 2). The WBWR had 25% “Very Good” sites in the spring and 5% in the fall that were likely caused by an impoundment (Fig. 18) (Weiss, 2006).

The spring comparison may be questionable because the WBWR samples were taken a year after the LWR. The difference in BI Max10 scores between the LWR and the WBWR can likely be attributed to the increased land cover development and cultivation of the LWR system. The WBWR is 87% forested and contains little to no agricultural or urban land cover. The increased gradient of the WBWR had a gradient of 2.89 m/km (134m/46.4km) and the highest gradient in the of the three LWR sub-watersheds was 2.01 m/km in the Upper Little Wolf River.

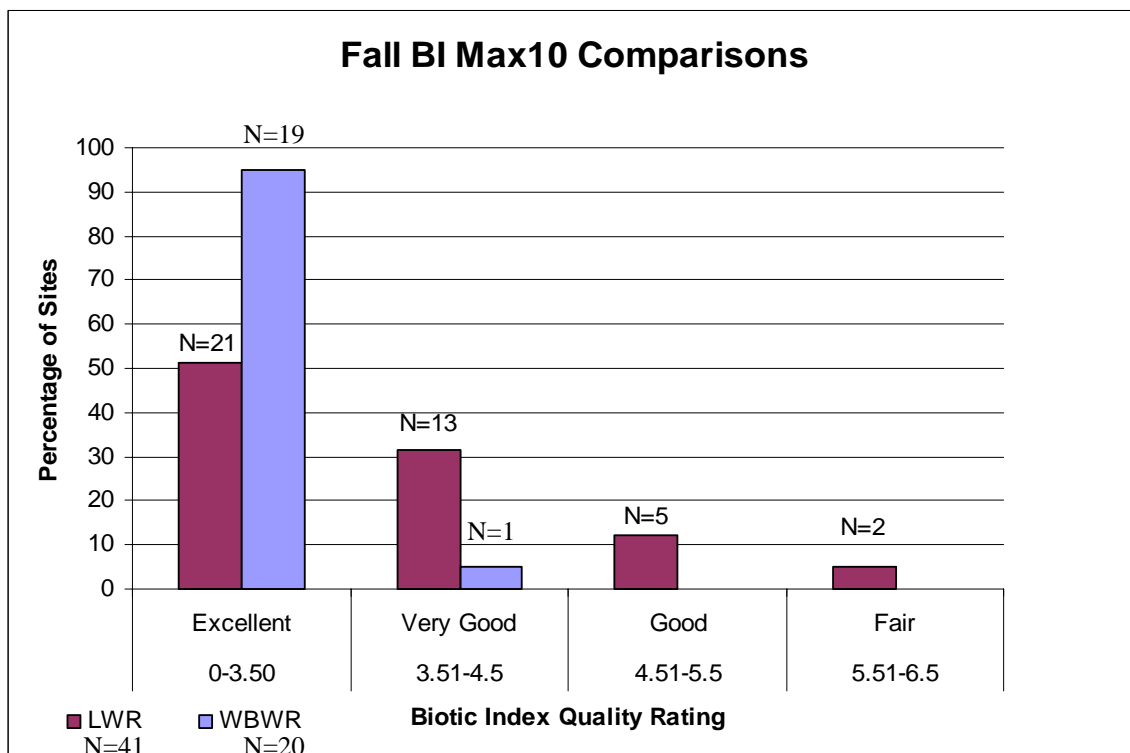
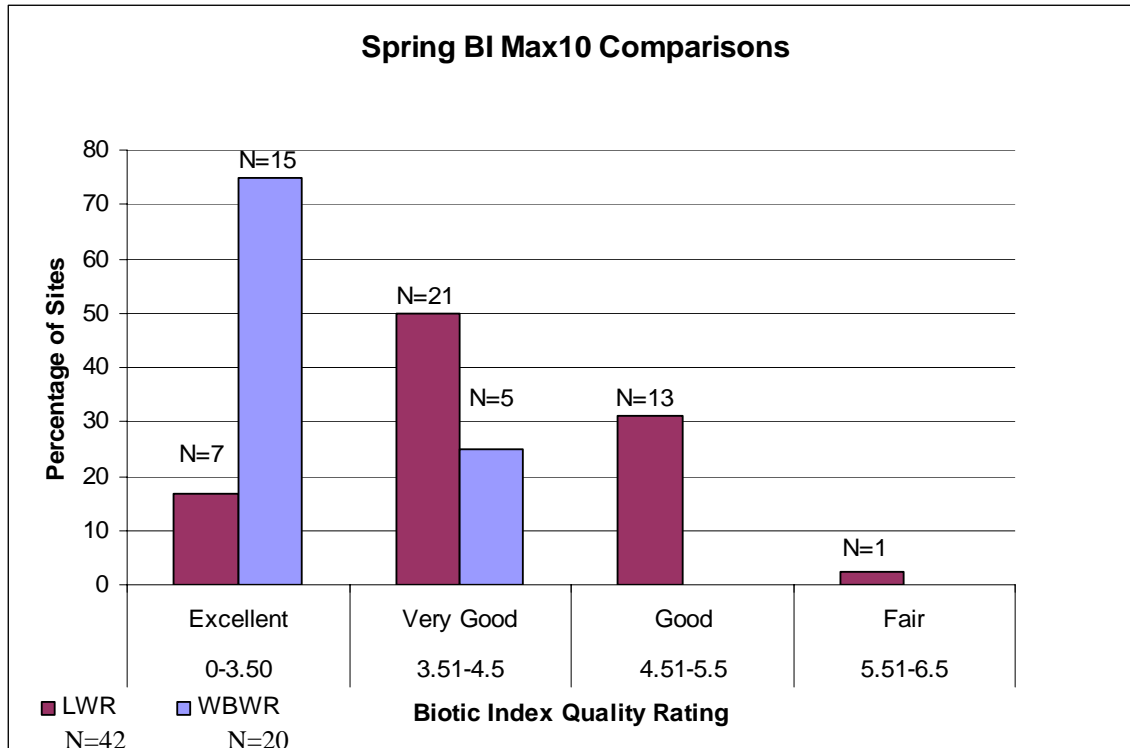


Fig. 18: Percentage of West Branch Wolf River (N=20)(Menominee Co., Wisconsin) and Little Wolf River (N=42 spring, N=41 fall)(Marathon, Portage, Shawano, Waupaca Co., Wisconsin) sites in each classification by season. Classes from Hilsenhoff (1987).

The analysis of variance (ANOVA) indicated no significant ($p=0.05$) differences in the BI Max10 between the three sub-watersheds in either season. This comparison provides evidence that rural development and low levels of agriculture can have a detectable impact on the water quality of a watershed.

Table 4: Comparison of Little Wolf River sub-watersheds (Marathon, Portage, Shawano, Waupaca Co., Wisconsin) to the West Branch Wolf River (Menominee Co., Wisconsin).

Spring BI Max10

	N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
WBWR	20	3.03	0.59	0.13	2.75	3.30	2.24	3.85
Upper LWR	14	4.10	0.52	0.14	3.79	4.40	3.37	5.03
Lower LWR	13	4.31	0.51	0.14	4.00	4.62	3.07	5.17
South B. LWR	15	4.39	0.79	0.20	3.95	4.82	3.22	5.60
Total	62	3.87	0.84	0.11	3.65	4.08	2.24	5.60

Fall BI Max10

	N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
WBWR	20	2.68	0.51	0.11	2.44	2.92	1.62	3.68
Upper LWR	14	3.51	0.78	0.21	3.06	3.96	2.65	5.18
Lower LWR	13	3.69	0.77	0.21	3.22	4.15	2.91	5.60
South B. LWR	14	3.89	0.81	0.22	3.42	4.35	2.71	5.69
Total	61	3.36	0.85	0.11	3.15	3.58	1.62	5.69

SUMMARY AND RECOMMENDATIONS

Based on the results of this study the LWR basin is “slightly to moderately impacted”. There were statistically significant ($p < 0.01$) seasonal differences in BI Max10 and EPT richness, but not in sub-watershed quality classifications, species richness, generic richness, or the diversity index.

Little Wolf River BI Max10 values were significantly ($p < 0.05$) higher than the West Branch Wolf River in both spring and fall, but the three Little Wolf River sub-watersheds were statistically similar.

BI Max10 scores were significantly ($p < 0.05$) correlated to land cover classes at the 100m and 250m zones in spring but not fall. The BI Max10 was not correlated with watershed scale land cover in either season. Watershed scale land practices need to be investigated in other watersheds of the north central hardwoods ecoregion because agricultural land cover in the LWR basin was likely too limited an area to impact water quality on a large scale.

Data resolution is important in assessing human impacts. Analysis of small spatial scales may be enhanced by more detailed data than are currently available. Analysis of larger spatial scales should be done using multiple temporal scales of reference to account for delayed entry of ground water.

Detailed measurement of physical water parameters (temp, pH, DO, etc.) should be included in future research to provide a more direct connection between the landscape and biota. Diversity was positively correlated to cumulative stream meters in both seasons. BI Max10 values showed high variability in the smaller streams but approached the watershed average after 250 stream km. This subject needs to be investigated further because of sparse sampling of larger stream reaches.

Increased sampling effort on stream reaches between 400-800 cumulative stream km is necessary to determine the connection between larger stream reaches and the landscape. 81% of the sites in this study had 75 or fewer stream km upstream. Water quality appears to become an average after 250 cumulative stream km, but further sampling is needed.

Future monitoring at the sites sampled in 2004-2005 is recommended to better understand the dynamics of the LWR watershed. The baseline has been established and continued monitoring is necessary to detect changes in water quality.

Longitudinal sampling patterns should be employed on <75 cumulative km streams in the LWR watershed to determine the upstream distance represented by samples. This would provide valuable in understanding the area of impact in streams near agricultural or urban areas.

The Lower Little Wolf River watershed should be sampled in the future. This area has many streams that are intermittent in nature and are in close proximity to agricultural land cover. Sampling this watershed would provide data on potentially impacted streams, and provide a more complete understanding of landscape factors contributing to water quality.

Groundwater samples should be collected in headwater areas to determine the age and proportion of groundwater in the streams. This will allow for land cover data from the correct time period to be analyzed.

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Appendix A: Site locations on stream names in the Little Wolf River watershed in Marathon, Portage, Shawano, and Waupaca Co., Wisconsin. Sample number indicates year, month, date, and site number (yyyymmdd-Co-Site)

Sample Number	Site Number	Water Body	Location
20040426-69-10	10	PETERSON CREEK	80 ft. downstream of Peterson Road
20051002-69-10	10	PETERSON CREEK	80 ft. downstream of Peterson Road
20040505-69-11	11	PETERSON CREEK	0.5 mile south of Cnty Q bridge.
20051003-69-11	11	PETERSON CREEK	0.5 mile south of Cnty Q bridge.
20040507-69-12	12	S. BRANCH LITTLE WOLF RIVER	80 ft. upstream of Rasmussen Road bridge.
20051002-69-12	12	S. BRANCH LITTLE WOLF RIVER	80 ft. upstream of Rasmussen Road bridge.
20040505-69-13	13	NICHOL CREEK	300 ft west of county park south parking lot.
20040426-69-14	14	S. BRANCH LITTLE WOLF RIVER	100 ft. downstream of Cnty E bridge
20051002-69-14	14	S. BRANCH LITTLE WOLF RIVER	100 ft. downstream of Cnty E bridge
20040507-69-16	16	S. BRANCH LITTLE WOLF RIVER	600 ft downstream of private drive west of hwy 110/54/22.
20051002-69-16	16	S. BRANCH LITTLE WOLF RIVER	600 ft downstream of private drive west of hwy 110/54/22.
20040426-69-18	18	ENGIBRETSON CREEK	50 ft downstream of railroad crossing.
20051002-69-18	18	ENGIBRETSON CREEK	50 ft downstream of railroad crossing.
20040426-69-19	19	N. BRANCH LITTLE WOLF RIVER	70 ft downstream of Cnty E bridge.
20051002-69-19	19	N. BRANCH LITTLE WOLF RIVER	70 ft downstream of Cnty E bridge.
20040511-50-22	22	TROUT CREEK	80 ft downstream of Johnson Drive off Trout Creek Road.
20051003-50-22	22	TROUT CREEK	80 ft downstream of Johnson Drive off Trout Creek Road.
20040427-69-23	23	S. BRANCH LITTLE WOLF RIVER	100 ft. downstream Cnty G bridge.
20051002-69-23	23	S. BRANCH LITTLE WOLF RIVER	100 ft. downstream of Cnty G bridge
20040505-69-24	24	S. BRANCH LITTLE WOLF RIVER	220 ft downstream of Weinmann Rd bridge.
20051002-69-24	24	S. BRANCH LITTLE WOLF RIVER	220 ft downstream of Weinmann Rd bridge.
20040427-50-25	25	FLUME CREEK	40 ft upstream of Cnty T bridge.
20050930-50-25	25	FLUME CREEK	40 ft upstream of Cnty T bridge.
20040427-50-26	26	FLUME CREEK	30 ft downstream of Cnty I culvert
20050930-50-26	26	FLUME CREEK	30 ft downstream of Cnty I culvert
20040427-50-29	29	HOLT CREEK	40 ft downstream of Hwy 49 bridge
20050930-50-29	29	HOLT CREEK	40 ft downstream of Hwy 49 bridge
20040515-37-30	30	HOLT CREEK	120 ft downstream of Holt Rd. culvert.

Sample Number	Site Number	Water Body	Location
20050930-37-30	30	HOLT CREEK	120 ft downstream of Holt Rd. culvert.
20040505-37-31	31	LITTLE WOLF RIVER	30 ft. downstream of bridge at end of Mountain Rd.
20050930-37-31	31	LITTLE WOLF RIVER	30 ft. downstream of bridge at end of Mountain Rd.
20040427-37-32	32	CAMP CREEK	30 ft downstream of Racoon Rd bridge.
20050930-37-32	32	CAMP CREEK	30 ft downstream of Racoon Rd bridge.
20040428-37-33	33	COMET CREEK	120 ft downstream of Hwy 49 bridge
20050930-37-33	33	COMET CREEK	120 ft downstream of Hwy 49 bridge
20040428-59-34	34	COMET CREEK	60 ft downstream of Much Rd bridge
20050930-59-34	34	COMET CREEK	60 ft downstream of Much Rd bridge
20040428-69-35	35	COMET CREEK	90 ft upstream of Bergen Rd bridge
20050930-69-35	35	COMET CREEK	90 ft upstream of Bergen Rd bridge
20040428-69-36	36	LITTLE WOLF RIVER	600 ft upstream of Cnty J bridge
20051001-69-36	36	LITTLE WOLF RIVER	600 ft upstream of Cnty J bridge
20040429-69-37	37	FLUME CREEK	80 ft downstream of Cnty C bridge
20050930-69-37	37	FLUME CREEK	80 ft downstream of Cnty C bridge
20040429-69-38	38	SPAULDING CREEK	630 ft downstream of Cnty G bridge
20051001-69-38	38	SPAULDING CREEK	630 ft downstream of Cnty G bridge
20040429-69-39	39	LITTLE WOLF RIVER	50 ft downstream of snowmobile bridge off Cnty Hwy C.
20051001-69-39	39	LITTLE WOLF RIVER	50 ft downstream of snowmobile bridge off Cnty Hwy C.
20040505-69-40	40	N. FORK BLAKE CREEK	20 ft downstream of Cnty E culvert
20051001-69-40	40	N. FORK BLAKE CREEK	20 ft downstream of Cnty E culvert
20040429-69-41	41	S. FORK BLAKE CREEK	40 ft downstream of Betsul Rd culvert.
20051001-69-41	41	S. FORK BLAKE CREEK	40 ft downstream of Betsul Rd culvert.
20040430-69-43	43	LEER CREEK	360 ft downstream of Roosevelt Rd culvert.
20051003-69-43	43	LEER CREEK	360 ft downstream of Roosevelt Rd culvert.
20040505-69-44	44	S. BRANCH LITTLE WOLF RIVER	60 ft downstream of Paulsen Rd culvert.
20051003-69-44	44	S. BRANCH LITTLE WOLF RIVER	60 ft downstream of Paulsen Rd culvert.
20040430-69-45	45	GRIFFIN CREEK	60 ft downstream of first culvert West of Snurred Rd.
20051003-69-45	45	GRIFFIN CREEK	60 ft downstream of first culvert West of Snurred Rd.
20040503-69-46	46	S. TRIB. WHITCOMB CREEK	50 ft downstream of Carper Rd culvert.

Sample Number	Site Number	Water Body	Location
20051001-69-46	46	S. TRIB. WHITCOMB CREEK	50 ft downstream of Carper Rd culvert.
20040503-69-47	47	N. FORK WHITCOMB CREEK	10 ft downstream of Cnty G bridge
20051001-69-47	47	N. FORK WHITCOMB CREEK	10 ft downstream of Cnty G bridge
20040503-69-48	48	WHITCOMB CREEK	20 ft upstream of Cnty OO bridge
20051001-69-48	48	WHITCOMB CREEK	20 ft upstream of Cnty OO bridge
20051001-69-50	50	SHAW CREEK	20 ft upstream of Cnty O bridge
20040503-69-51	51	BEAVER CREEK	280 ft downstream Cnty O culvert.
20040519-69-53	53	LITTLE WOLF RIVER	40 ft upstream Hwy 22 bridge.
20051001-69-53	53	LITTLE WOLF RIVER	40 ft upstream Hwy 22 bridge.
20040519-69-54	54	BLAKE CREEK	10 ft upstream Hwy 22/110 bridge.
20051001-69-54	54	BLAKE CREEK	10 ft upstream Hwy 22/110 bridge.
20040504-69-56	56	LITTLE WOLF RIVER	100 ft upstream of Hwy 54 bridge.
20051002-69-56	56	LITTLE WOLF RIVER	100 ft upstream of Hwy 54 bridge.
20040504-69-57	57	WHITE LAKE OUTLET	30 ft upstream from Hwy 54 culvert
20051002-69-57	57	WHITE LAKE OUTLET	30 ft upstream from Hwy 54 culvert
20040512-37-58	58	LITTLE WOLF RIVER	50 ft downstream of River Rd culvert.
20050930-37-58	58	LITTLE WOLF RIVER	50 ft downstream of River Rd culvert.
20040512-69-59	59	SPALDING CREEK	70 ft downstream of Cty E bridge
20051001-69-59	59	SPALDING CREEK	70 ft downstream of Cty E bridge
20040512-50-60	60	BRADLEY CREEK	40 ft downstream of Hwy 49 culvert
20050930-50-60	60	BRADLEY CREEK	40 ft downstream of Hwy 49 culvert
20040510-69-63	63	LITTLE WOLF RIVER	380 ft downstream of Ostrander Rd bridge.
20051002-69-63	63	LITTLE WOLF RIVER	380 ft downstream of Ostrander Rd
20040512-69-64	64	JACKSON CREEK	20 ft downstream of Kluck road.
20050930-69-64	64	JACKSON CREEK	20 ft downstream of Kluck road.

Appendix B: Longitudinal site data and physical measurements taken during each sampling effort. Coordinates recorded with a Garmin 76s in Spring 2004 and confirmed or corrected with a Trimble GeoXT in Fall 2005. Physical measurements taken with a YSI Model 600xl Sonde Probe and a March-McBirny Model 201D current meter.

Site	Latitude	Longitude	Spring 2004				Fall 2005			
			Temp. C	pH	D.O. (mg/l)	Conductivity	Temp. C	pH	D.O. (mg/l)	Conductivity
10	44.43365	-89.18830	7.35	8.15	9.43	456	15.79	7.89	8.41	496
11	44.43633	-89.14725	12.89	8.42	9.51	467	16.13	7.98	8.13	504
12	44.43852	-89.12881	12.72	8.09	9.46	382	17.3	8.21	9.29	480
13	44.37389	-89.09722	14.51	8.86	11.2	402	NA	NA	NA	NA
14	44.40029	-89.02538	8.45	8.23	9.66	421	14.13	8.11	8.49	505
16	44.39658	-88.94598	15.59	8.35	9.47	424	14.86	8.17	8.78	488
18	44.45354	-89.03284	10.57	8.19	8.86	296	15.21	7.99	8.61	435
19	44.48687	-89.04100	8.21	7.8	9.12	310	11.82	7.75	8.99	462
22	44.51896	-89.24378	17.52	7.85	9.47	309	17.48	7.64	6.36	445
23	44.49712	-89.14996	8.78	8.33	10.98	415	18.85	8.33	10.62	466
24	44.48579	-89.14795	15.22	8.55	11.32	423	14.52	8.43	4.08	464
25	44.59762	-89.26679	8.07	8.17	11.38	318	9.97	7.99	8.99	445
26	44.64101	-89.32474	7.5	7.83	11.87	231	9.03	7.87	9.13	395
29	44.68169	-89.26569	9.6	8.43	12.05	307	10.14	8.03	9.06	406
30	44.71107	-89.30450	15.34	7.81	9.61	240	10.24	7.91	8.8	427
31	44.68475	-89.24240	10.49	8.28	9.88	365	10.21	8.01	9.48	393
32	44.74643	-89.28683	10.6	8.1	10.25	179	11.84	7.9	5.13	380
33	44.76110	-89.24403	8.11	7.96	10.77	304	13.72	7.85	8.78	437
34	44.70783	-89.17627	9.64	8.15	11	322	11.68	8.02	9.3	426
35	44.64611	-89.11222	11.04	7.99	11.52	301	12.17	8.02	8.94	411
36	44.61903	-89.07458	12.3	7.71	10.92	315	11.16	8.12	9.99	416
37	44.60595	-89.14700	13.55	8.12	8.76	349	12.59	8.13	9.61	423
38	44.62511	-88.99534	13.28	7.96	8.8	247	10.53	9.11	7.78	354
39	44.60675	-88.99494	14.53	8.26	7.9	318	12.61	8.19	9.74	407
40	44.54493	-89.02109	11.79	8.08	8.98	306	13.29	7.7	8.07	350
41	44.53427	-89.04659	12.13	8.24	10.65	398	13.56	8.07	8.56	444
43	44.56908	-89.17148	11.24	7.98	11.31	443	14.3	7.95	8.06	489

Site	Latitude	Longitude	Spring 2004				Fall 2005			
			Temp. C	pH	D.O. (mg/l)	Conductivity	Temp. C	pH	D.O. (mg/l)	Conductivity
44	44.54626	-89.18368	11.35	8.18	9.89	431	15.26	8.03	8.1	478
45	44.55079	-89.20118	13.24	8.38	10.49	425	18.86	8.17	6.91	486
46	44.57139	-89.04149	11.55	8.17	10.65	362	12.75	8.05	9.07	427
47	44.58613	-89.03658	12.32	8.18	10.68	362	12.4	7.92	9.31	395
48	44.56819	-88.93554	14.6	8.26	11.15	333	14.48	8.03	8.5	395
50	44.55695	-88.87971	NA	NA	NA	NA	14.18	7.48	7.69	278
51	44.54181	-88.87955	14.87	7.57	8.13	421	NA	NA	NA	NA
53	44.51361	-88.90472	17.68	8.07	9.56	345	14.34	8.1	8.89	404
54	44.50462	-88.92043	17.33	7.93	9.69	356	14.52	7.96	8.5	441
56	44.41269	-88.86515	14.3	8.57	13.06	375	15.77	8.09	8.72	452
57	44.40236	-88.90819	18.32	7.52	8.06	229	15.01	7.77	7.56	350
58	44.73933	-89.29859	18.21	7.91	10.3	234	11.95	7.81	9.51	360
59	44.63689	-89.02197	17.8	7.87	9.52	221	10.48	7.94	9.47	369
60	44.63926	-89.28687	15.17	7.76	8.25	307	8.91	7.6	7.06	421
63	44.39278	-88.83639	13.55	7.96	7.89	333	16.58	8.22	8.88	448
64	44.67150	-89.16579	14.34	7.7	9.45	262	11.6	7.89	8.43	401

Appendix C: Biotic index and biotic index (Max10) scores for each repetition and site.

SAMPLENUM	SITE	REP	HBI	HBI_COUNT	HBI10	HBI10_CNT
20040426-69-10	10	1	3.185	178	3.748	103
20040426-69-10	10	2	2.393	201	3.514	72
20040426-69-10	10	3	1.895	247	3.380	79
20040505-69-11	11	1	3.487	154	3.517	89
20040505-69-11	11	2	3.430	142	3.440	91
20040505-69-11	11	3	2.184	141	3.288	73
20040507-69-12	12	1	5.472	197	4.450	80
20040507-69-12	12	2	4.080	225	4.064	78
20040507-69-12	12	3	4.266	173	4.250	72
20040505-69-13	13	1	5.444	142	4.800	90
20040505-69-13	13	2	5.276	116	5.022	91
20040505-69-13	13	3	5.597	149	5.019	105
20040426-69-14	14	1	4.959	195	4.337	86
20040426-69-14	14	2	5.481	185	4.367	90
20040426-69-14	14	3	5.803	198	4.578	90
20040507-69-16	16	1	4.180	161	4.227	97
20040507-69-16	16	2	4.025	163	3.982	113
20040507-69-16	16	3	4.023	174	4.178	107
20040426-69-18	18	1	5.005	192	5.014	71
20040426-69-18	18	2	5.111	135	5.196	51
20040426-69-18	18	3	5.392	158	5.575	80
20040426-69-19	19	1	3.397	131	3.416	125
20040426-69-19	19	2	2.813	139	3.024	125
20040426-69-19	19	3	3.857	168	3.429	133
20040511-50-22	22	1	5.761	46	5.756	45
20040511-50-22	22	2	4.950	60	4.949	59
20040511-50-22	22	3	5.407	59	5.407	59
20040427-69-23	23	1	5.968	156	5.338	80
20040427-69-23	23	2	5.694	219	5.321	109
20040427-69-23	23	3	6.105	200	5.526	76
20040505-69-24	24	1	5.048	251	4.787	174
20040505-69-24	24	2	4.894	151	4.692	133
20040505-69-24	24	3	5.021	187	4.676	108
20040427-50-25	25	1	4.064	110	3.816	76
20040427-50-25	25	2	4.198	172	3.821	106
20040427-50-25	25	3	4.176	153	3.776	107
20040427-50-26	26	1	3.943	140	3.974	78
20040427-50-26	26	2	4.652	132	4.425	73
20040427-50-26	26	3	4.906	138	4.735	49
20040427-50-29	29	1	4.523	132	4.512	129
20040427-50-29	29	2	3.845	142	3.970	100
20040427-50-29	29	3	4.119	160	4.267	120
20040515-37-30	30	1	5.297	111	5.366	71
20040515-37-30	30	2	5.000	123	5.000	82
20040515-37-30	30	3	4.756	123	4.724	87
20040505-37-31	31	1	4.462	119	4.277	101
20040505-37-31	31	2	4.772	123	4.322	90
20040505-37-31	31	3	4.598	132	4.327	98

SAMPLENUM	SITE	REP	HBI	HBI_COUNT	HBI10	HBI10_CNT
20040427-37-32	32	1	4.863	51	4.711	45
20040427-37-32	32	2	3.828	58	3.815	54
20040427-37-32	32	3	4.619	181	4.454	119
20040428-37-33	33	1	4.766	141	4.590	78
20040428-37-33	33	2	4.377	130	4.148	81
20040428-37-33	33	3	4.443	140	4.189	95
20040428-59-34	34	1	4.604	187	3.706	119
20040428-59-34	34	2	3.663	205	3.362	130
20040428-59-34	34	3	2.919	210	3.201	134
20040428-69-35	35	1	3.953	192	4.204	157
20040428-69-35	35	2	4.216	194	4.108	139
20040428-69-35	35	3	3.468	233	3.567	141
20040428-69-36	36	1	2.743	268	3.435	138
20040428-69-36	36	2	2.985	205	3.496	123
20040428-69-36	36	3	2.567	240	3.171	140
20040429-69-37	37	1	3.994	175	3.990	102
20040429-69-37	37	2	4.800	160	3.860	93
20040429-69-37	37	3	4.059	202	3.229	109
20040429-69-38	38	1	5.883	179	4.556	72
20040429-69-38	38	2	5.712	153	4.765	85
20040429-69-38	38	3	3.761	176	3.727	139
20040429-69-39	39	1	4.631	176	4.667	99
20040429-69-39	39	2	4.226	199	4.000	117
20040429-69-39	39	3	5.064	156	4.474	97
20040505-69-40	40	1	4.031	159	4.179	28
20040505-69-40	40	2	3.617	141	3.723	65
20040505-69-40	40	3	3.904	125	4.141	85
20040429-69-41	41	1	4.118	136	4.157	102
20040429-69-41	41	2	4.007	147	4.031	96
20040429-69-41	41	3	4.029	140	4.053	113
20040430-69-43	43	1	3.660	159	3.053	57
20040430-69-43	43	2	3.637	157	3.439	98
20040430-69-43	43	3	3.503	157	3.160	75
20040505-69-44	44	1	3.648	199	3.575	134
20040505-69-44	44	2	4.264	208	4.157	115
20040505-69-44	44	3	4.143	210	3.950	121
20040430-69-45	45	1	4.044	272	4.786	103
20040430-69-45	45	2	3.632	231	4.407	81
20040430-69-45	45	3	3.816	207	4.580	81
20040503-69-46	46	1	4.718	142	4.152	99
20040503-69-46	46	2	4.407	108	4.253	79
20040503-69-46	46	3	4.863	168	4.770	100
20040503-69-47	47	1	3.894	160	3.588	80
20040503-69-47	47	2	3.713	150	3.442	77
20040503-69-47	47	3	4.286	175	4.449	98
20040503-69-48	48	1	4.210	157	4.274	106
20040503-69-48	48	2	5.429	147	4.750	60
20040503-69-48	48	3	5.640	178	4.732	71
20040503-69-51	51	1	5.632	182	5.333	51
20040503-69-51	51	2	5.945	238	5.100	40
20040503-69-51	51	3	5.685	200	5.081	37

SAMPLENUM	SITE	REP	HBI	HBI_COUNT	HBI10	HBI10_CNT
20040519-69-53	53	1	4.548	126	4.625	80
20040519-69-53	53	2	4.517	178	4.500	98
20040519-69-53	53	3	4.659	132	4.584	77
20040519-69-54	54	1	4.252	115	4.763	38
20040519-69-54	54	2	4.225	129	4.744	39
20040519-69-54	54	3	4.342	196	4.948	58
20040504-69-56	56	1	5.014	141	4.811	122
20040504-69-56	56	2	4.481	154	4.699	103
20040504-69-56	56	3	4.264	129	4.261	88
20040504-69-57	57	1	5.450	131	5.344	32
20040504-69-57	57	2	5.234	137	5.810	42
20040504-69-57	57	3	5.056	126	5.633	30
20040512-37-58	58	1	4.468	126	4.741	58
20040512-37-58	58	2	4.767	120	4.945	91
20040512-37-58	58	3	5.115	122	5.196	92
20040512-69-59	59	1	3.015	131	2.966	119
20040512-69-59	59	2	2.975	119	3.046	109
20040512-69-59	59	3	3.149	141	3.204	113
20040512-50-60	60	1	4.431	130	4.455	88
20040512-50-60	60	2	3.985	137	3.753	85
20040512-50-60	60	3	4.205	122	4.196	107
20040510-69-63	63	1	4.275	120	4.317	104
20040510-69-63	63	2	4.117	128	4.209	115
20040510-69-63	63	3	4.160	119	4.099	111
20040512-69-64	64	1	3.195	118	2.963	81
20040512-69-64	64	2	3.195	123	3.478	92
20040512-69-64	64	3	2.839	149	3.804	92
20051002-69-10	10	1	3.368	182	3.274	135
20051002-69-10	10	2	3.101	218	3.060	150
20051002-69-10	10	3	3.243	136	3.361	108
20051003-69-11	11	1	3.489	139	2.986	70
20051003-69-11	11	2	2.325	154	2.468	94
20051003-69-11	11	3	2.692	133	2.660	106
20051002-69-12	12	1	4.099	162	4.292	113
20051002-69-12	12	2	4.197	132	4.425	87
20051002-69-12	12	3	4.282	124	4.042	96
20051002-69-14	14	1	3.237	135	3.536	97
20051002-69-14	14	2	2.629	167	3.071	98
20051002-69-14	14	3	3.106	434	3.926	149
20051002-69-16	16	1	3.984	122	4.091	110
20051002-69-16	16	2	3.408	142	3.628	121
20051002-69-16	16	3	3.533	120	3.526	97
20051002-69-18	18	1	4.652	132	4.805	87
20051002-69-18	18	2	4.526	213	4.549	82
20051002-69-18	18	3	4.662	148	4.714	98
20051002-69-19	19	1	3.325	123	3.259	112
20051002-69-19	19	2	2.702	171	3.071	126
20051002-69-19	19	3	3.519	131	3.330	100
20051003-50-22	22	1	5.978	139	5.429	49
20051003-50-22	22	2	4.941	136	4.882	68
20051003-50-22	22	3	4.479	144	4.426	68

SAMPLENUM	SITE	REP	HBI	HBI_COUNT	HBI10	HBI10_CNT
20051002-69-23	23	1	4.468	141	4.167	90
20051002-69-23	23	2	4.745	110	4.627	75
20051002-69-23	23	3	4.489	135	4.323	93
20051002-69-24	24	1	4.170	141	4.143	91
20051002-69-24	24	2	4.364	236	4.151	119
20051002-69-24	24	3	4.274	164	3.880	83
20050930-50-25	25	1	3.220	232	3.026	117
20050930-50-25	25	2	4.570	151	3.304	79
20050930-50-25	25	3	3.802	202	3.256	78
20050930-50-26	26	1	4.135	148	4.415	118
20050930-50-26	26	2	3.909	121	4.080	100
20050930-50-26	26	3	4.331	118	4.131	84
20050930-50-29	29	1	3.537	108	3.436	101
20050930-50-29	29	2	3.153	131	3.124	105
20050930-50-29	29	3	3.140	143	2.927	96
20050930-37-30	30	1	2.937	142	2.885	104
20050930-37-30	30	2	2.425	134	2.611	90
20050930-37-30	30	3	2.599	182	2.843	108
20050930-37-31	31	1	2.982	163	3.056	108
20050930-37-31	31	2	3.055	127	2.935	107
20050930-37-31	31	3	3.120	125	2.929	99
20050930-37-32	32	1	3.681	144	3.429	84
20050930-37-32	32	2	3.851	202	3.603	68
20050930-37-32	32	3	3.649	208	3.600	85
20050930-37-33	33	1	4.741	139	5.031	96
20050930-37-33	33	2	5.072	125	5.170	112
20050930-37-33	33	3	5.135	126	5.337	98
20050930-59-34	34	1	2.459	159	2.762	101
20050930-59-34	34	2	2.000	144	2.446	83
20050930-59-34	34	3	2.050	201	2.740	104
20050930-69-35	35	1	3.072	153	3.422	128
20050930-69-35	35	2	3.081	149	3.150	113
20050930-69-35	35	3	2.807	171	2.816	125
20051001-69-36	36	1	2.791	244	3.105	153
20051001-69-36	36	2	2.447	152	2.456	103
20051001-69-36	36	3	2.865	192	3.281	96
20050930-69-37	37	1	3.709	148	4.028	107
20050930-69-37	37	2	3.258	128	3.088	102
20050930-69-37	37	3	2.992	132	3.103	97
20051001-69-38	38	1	4.101	158	4.140	93
20051001-69-38	38	2	3.761	134	3.846	104
20051001-69-38	38	3	3.657	143	3.500	104
20051001-69-39	39	1	3.390	118	3.477	111
20051001-69-39	39	2	2.992	128	3.187	107
20051001-69-39	39	3	3.121	124	3.392	102
20051001-69-40	40	1	3.649	111	3.534	88
20051001-69-40	40	2	3.809	115	3.729	96
20051001-69-40	40	3	3.369	122	3.299	97
20051001-69-41	41	1	3.299	134	3.043	94
20051001-69-41	41	2	3.949	136	3.897	68
20051001-69-41	41	3	3.924	132	3.655	29

SAMPLENUM	SITE	REP	HBI	HBI_COUNT	HBI10	HBI10_CNT
20051003-69-43	43	1	3.993	148	3.952	21
20051003-69-43	43	2	3.580	243	3.122	82
20051003-69-43	43	3	3.708	171	3.138	58
20051003-69-44	44	1	3.551	176	3.440	125
20051003-69-44	44	2	3.686	172	3.492	124
20051003-69-44	44	3	3.529	208	3.340	153
20051003-69-45	45	1	3.400	135	3.159	82
20051003-69-45	45	2	3.264	121	3.192	73
20051003-69-45	45	3	3.529	136	3.517	87
20051001-69-46	46	1	2.056	142	2.764	89
20051001-69-46	46	2	2.812	117	2.990	104
20051001-69-46	46	3	2.361	119	2.963	80
20051001-69-47	47	1	3.523	151	3.341	82
20051001-69-47	47	2	2.916	131	2.947	95
20051001-69-47	47	3	3.176	142	3.169	65
20051001-69-48	48	1	3.451	133	3.515	97
20051001-69-48	48	2	3.216	125	3.234	107
20051001-69-48	48	3	3.348	155	3.375	104
20051001-69-50	50	1	4.482	139	4.886	44
20051001-69-50	50	2	4.667	135	4.867	45
20051001-69-50	50	3	4.589	129	4.957	47
20051001-69-53	53	1	3.066	137	3.162	105
20051001-69-53	53	2	3.064	202	3.441	143
20051001-69-53	53	3	3.368	144	3.504	115
20051001-69-54	54	1	5.909	121	5.947	76
20051001-69-54	54	2	5.094	127	5.415	94
20051001-69-54	54	3	5.449	136	5.434	83
20051002-69-56	56	1	3.615	117	3.355	93
20051002-69-56	56	2	3.974	151	3.912	113
20051002-69-56	56	3	3.673	107	3.943	88
20051002-69-57	57	1	5.768	125	5.476	63
20051002-69-57	57	2	6.163	160	5.735	68
20051002-69-57	57	3	6.124	137	5.868	38
20050930-37-58	58	1	3.543	164	3.011	94
20050930-37-58	58	2	3.993	135	3.111	72
20050930-37-58	58	3	3.333	150	3.781	64
20051001-69-59	59	1	2.709	134	2.469	96
20051001-69-59	59	2	3.229	170	3.200	135
20051001-69-59	59	3	3.086	163	3.047	129
20050930-50-60	60	1	4.824	102	4.774	93
20050930-50-60	60	2	4.875	72	4.913	69
20050930-50-60	60	3	5.329	85	5.337	83
20051002-69-63	63	1	3.071	294	3.126	175
20051002-69-63	63	2	3.420	119	3.165	85
20051002-69-63	63	3	5.306	170	4.921	126
20050930-69-64	64	1	3.638	149	3.504	125
20050930-69-64	64	2	3.455	112	3.523	109
20050930-69-64	64	3	3.936	125	3.831	118

Appendix D: Complete taxa list by sample site. Includes number found in each repetition, assigned tolerance value, and taxonomic reference used.

BEAVER CREEK

Location- 280 ft downstream Cnty O culvert.

SAMPLENUM- 20040503-69-51

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01060000	PLECOPTERA	PERLODIDAE	**UNIDENTIFIED**			0	1	0	Hilsenhoff 1981
01060408	PLECOPTERA	PERLODIDAE	ISOPERLA	NANA	5.0	3	0	0	Hilsenhoff 1981,82
02070000	EPHEMEROPTERA	LEPTOPHLEBIIDAE	**UNIDENTIFIED**			14	5	1	Hilsenhoff 1995,82
07050200	COLEOPTERA	DYTISCIDAE	AGABUS	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08030000	DIPTERA	CERATOPOGONIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		6	3	21	Hilsenhoff 1995
08110201	DIPTERA	SIMULIIDAE	SIMULIUM	AUREUM	7.0	6	0	4	Hilsenhoff 1985
08110202	DIPTERA	SIMULIIDAE	SIMULIUM	CROXTONI	1.0	28	20	30	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	66	125	82	Hilsenhoff 1985
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	67	83	81	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		3	5	4	Hilsenhoff 1985
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		0	1	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	2	2	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	2	0	0	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	0	1	1	Epler 2001
08301700	DIPTERA	ORTHOCLADIINAE	HYDROBAENUS	**UNIDENTIFIED**	8.0	2	2	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	5	5	2	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	0	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001

BLAKE CREEK

Location- 10 ft upstream Hwy 22/110 bridge.

SAMPLENUM- 20040519-69-54

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050500	PLECOPTERA	PERLIDAE	PERLESTA	**UNIDENTIFIED**		1	2	1	Hilsenhoff 1995
01050801	PLECOPTERA	PERLIDAE	AGNETINA	CAPITATA	2.0	0	1	0	Hilsenhoff 1981
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	0	0	1	Hilsenhoff 1995,82
02011603	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	CINCTUTUS		1	0	0	Hilsenhoff 1995,82
02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	0	1	0	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	2	2	2	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	1	0	0	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		1	3	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995,82
02061501	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	EXIGUUM	5.0	1	0	0	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	1	0	Hilsenhoff 1995,82
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	2	2	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	1	2	0	Schmude, Hils. 1986
04040900	TRICHOPTERA	HYDROPSYCHIDAE	**PUPA**			0	0	1	Merritt, Cummins 84
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	3	0	6	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	6	8	8	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	2	1	3	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	0	2	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	0	0	1	Hilsenhoff 1995
08141300	DIPTERA	TIPULIDAE	**PUPA**			0	0	1	Hilsenhoff 1995
08180100	DIPTERA	CULICIDAE	AEDES	**UNIDENTIFIED**		1	3	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	6	1	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	2	0	1	Epler 2001

08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	3	5	14	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	1	1	3	Epler 2001
08311000	DIPTERA	TANYTARSINI	SUBLETTEA	**UNIDENTIFIED**		1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	2	1	3	Epler 2001
08323000	DIPTERA	CHIRONOMINI	PARACLADOPELMA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	0	2	6	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	87	100	144	Holsinger 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		1	0	0	Pennak 1978
16000000	OLIGOCHAETA	**UNIDENTIFIED**				3	0	0	Pennak 1978

BLAKE CREEK

Location- 10 ft upstream Hwy 22/110 bridge.

SAMPLENUM- 20051001-69-54

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	0	1	0	Hilsenhoff 1995
02010100	EPHEMEROPTERA	BAETIDAE	BAETIS	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	2	2	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	1	5	4	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	1	2	2	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	3	1	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	0	7	10	Hilsenhoff 1995,82
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			0	0	1	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	1	5	2	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	1	5	7	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	1	0	Schmude, Hils. 1986
04081300	TRICHOPTERA	LIMNAPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	1	2	Hilsenhoff 1995

05020100	MEGALOPTERA	SIALIDAE	SIALIS	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	7	13	49	Hilsenhoff 1995
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	0	0	1	Hils., Schmude 1992
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	1	3	2	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	1	0	1	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	2	2	Hilsenhoff 1995
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	0	1	0	Hilsenhoff 1995
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	1	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	2	0	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	3	1	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	3	3	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			0	0	1	Epler 2001
08271400	DIPTERA	TANYPODINAE	LARSIA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08274200	DIPTERA	TANYPODINAE	P. (HOLOTANYPUS)	**UNIDENTIFIED**	9.0	0	2	5	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		4	0	0	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	11	3	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	1	3	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			1	2	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	27	5	3	Epler 2001
08321303	DIPTERA	CHIRONOMINI	DICROTENDIPES	FUMIDUS	8.0	11	6	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	14	9	2	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	3	0	1	Epler 2001
08323202	DIPTERA	CHIRONOMINI	PARATENDIPES	ALBIMANUS	8.0	0	2	3	Epler 2001
08324700	DIPTERA	CHIRONOMINI	C. (CHIRONOMUS)	**UNIDENTIFIED**	10.0	0	0	1	Epler 2001
08324701	DIPTERA	CHIRONOMINI	C. (CHIRONOMUS)	**PUPA**		2	0	1	Epler 2001

08330000	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**			2	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	32	40	24	Holsinger 1972
10010102	ISOPODA	ASELLIDAE	CAECIDOTEA	R. RACOVITZAI	8.0	0	0	5	Williams 1972

BRADLEY CREEK

Location- 40 ft downstream of Hwy 49 culvert

SAMPLENUM- 20040512-50-60

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02010103	EPHEMEROPTERA	BAETIDAE	BAETIS	INTERCALARIS	6.0	13	4	3	Hilsenhoff 1995,82
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	2	2	10	Hilsenhoff 1995,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGHII	5.0	0	0	10	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	3	3	2	Hilsenhoff 1995,82
02050100	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	0	5	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	0	2	Hilsenhoff 1995,82
03010401	ODONATA	AESHNIDAE	BOYERIA	VINOSA	2.0	1	0	0	Needham et al. 2000
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	1	3	1	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	1	0	Bright 2003
04020203	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**PUPA**		0	2	0	Merritt, Cummins 96
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	4	1	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	14	29	14	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	2	10	1	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	2	5	0	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNAPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	0	1	0	Hilsenhoff 1995
04090100	TRICHOPTERA	MOLANNIDAE	MOLANNA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
04110102	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	FERIA	1.0	0	2	0	Hilsenhoff 1995,82
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	2	0	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	4	3	2	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	40	43	13	Hilsenhoff 1995

07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	12	4	11	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	0	0	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	1	2	1	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	13	1	1	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	3	1	3	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		6	14	8	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	2	1	2	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	1	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	2	0	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		1	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	5	1	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	3	1	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	2	7	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	0	0	2	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	1	0	2	Epler 2001
08322502	DIPTERA	CHIRONOMINI	MICROTENDIPES	RYDALENSIS GROUP	6.0	0	0	1	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	1	2	5	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	2	3	3	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	0	1	17	Holsinger 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		7	3	7	Pennak 1978
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			0	0	1	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		0	1	1	Pennak 1978

BRADLEY CREEK

Location- 40 ft downstream of Hwy 49 culvert

SAMPLENUM- 20050930-50-60

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	9	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	2	0	0	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	6	7	1	Hilsenhoff 1995,82
03020102	ODONATA	CALOPTERYGIDAE	CALOPTERYX	MACULATA	5.0	0	0	4	Needham et al. 2000
03020201	ODONATA	CALOPTERYGIDAE	HETAERINA	AMERICANA	6.0	0	1	0	Needham et al. 2000
03040100	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	**UNIDENTIFIED**		0	0	2	Hilsenhoff 1995
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	1	0	0	Needham et al. 2000
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	4	1	2	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	0	1	Bright 2003
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	0	12	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	0	1	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	1	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	4	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	3	3	1	Hilsenhoff 1995
04070100	TRICHOPTERA	LEPTOCERIDAE	CERACLEA	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		3	19	3	Hilsenhoff 1995
04080100	TRICHOPTERA	LIMNEPHILIDAE	ANABOLIA	**UNIDENTIFIED**	5.0	1	0	0	Hilsenhoff 1995
04080501	TRICHOPTERA	LIMNEPHILIDAE	HYDATOPHYLAX	ARGUS	2.0	0	1	1	Hilsenhoff 1995
04080700	TRICHOPTERA	LIMNEPHILIDAE	LIMNEPHILUS	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	5	0	1	Hilsenhoff 1995
04090100	TRICHOPTERA	MOLANNIDAE	MOLANNA	**UNIDENTIFIED**	6.0	3	5	4	Hilsenhoff 1995
04140101	TRICHOPTERA	PSYCHOMYIIDAE	LYPE	DIVERSA	2.0	3	0	0	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	0	0	1	Hilsenhoff 1995

05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	2	0	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	0	2	0	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	3	4	Hils., Schmude 1992
08031900	DIPTERA	CERATOPOGONIDAE	CERATOPOGON	**UNIDENTIFIED**		3	1	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	0	1	Hilsenhoff 1995
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	0	0	1	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	10	10	7	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	1	0	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	0	0	1	Hilsenhoff 1995
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			2	2	0	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	1	2	Epler 2001
08271801	DIPTERA	TANYPODINAE	NATARSIA	BALTIMOREA	8.0	13	1	4	Epler 2001
08272300	DIPTERA	TANYPODINAE	RHEOPELOPIA	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	7	6	6	Epler 2001
08273400	DIPTERA	TANYPODINAE	REOMYIA	**UNIDENTIFIED**		3	0	3	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		16	4	6	Epler 2001
08274200	DIPTERA	TANYPODINAE	P. (HOLOTANYPUS)	**UNIDENTIFIED**	9.0	3	0	4	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	0	1	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	0	2	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	1	0	Epler 2001
08304701	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**PUPA**		0	0	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	2	2	Epler 2001
08310504	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	EXIGUUS GROUP	6.0	1	0	0	Epler 2001
08310801	DIPTERA	TANYTARSINI	TANYTARSUS	**PUPA**		0	1	0	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			0	5	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	2	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	2	4	4	Epler 2001
08323100	DIPTERA	CHIRONOMINI	PARALAUTERBORNIE	**UNIDENTIFIED**	8.0	0	1	0	Epler 2001
08323304	DIPTERA	CHIRONOMINI	PHAENOPSECTRA	OBEDIENS	7.0	0	1	1	Epler 2001

08326000	DIPTERA	CHIRONOMINI	P. (POLYPEDILUM)	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAEENUM GROUP	7.0	2	3	1	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	3	0	2	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	0	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	16	13	7	Holsinger 1972

CAMP CREEK

Location- 30 ft downstream of Racoon Rd bridge.

SAMPLENUM- 20040427-37-32

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040101	PLECOPTERA	NEMOURIDAE	AMPHINEMURA	DELOSA	3.0	1	0	2	Hilsenhoff 1995
01060403	PLECOPTERA	PERLODIDAE	ISOPERLA	COTTA	1.0	0	0	1	Hilsenhoff 1981,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	10	5	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	2	3	0	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	0	5	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	1	8	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	0	0	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	1	1	Hilsenhoff 1995,82
03040100	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	1	1	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	0	7	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	2	Schmude, Hils. 1986
04070100	TRICHOPTERA	LEPTOCERIDAE	CERACLEA	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	3	0	0	Hilsenhoff 1995
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	0	0	6	Hilsenhoff 1995,82
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	2	Neunzig 1966

07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	6	3	18	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	1	2	4	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	1	0	7	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	2	2	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	0	14	34	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	1	0	39	Hilsenhoff 1985
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	0	0	5	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		0	0	3	Hilsenhoff 1985
08110304	DIPTERA	SIMULIIDAE	PROSIMULIUM	MIXTUM	3.0	0	1	9	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	2	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	0	1	0	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	1	0	2	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		2	0	0	Epler 2001
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			0	1	0	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	0	1	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	1	3	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	0	0	1	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	0	4	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	0	1	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	0	0	4	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	1	1	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	16	1	5	Epler 2001
08304701	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**PUPA**		0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	11	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	3	1	5	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001

08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	2	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08325903	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	TRITUM	6.0	0	1	0	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAEENUM GROUP	7.0	0	1	0	Epler 2001
08326500	DIPTERA	CHIRONOMINI	S.	**UNIDENTIFIED**	5.0	0	2	0	Epler 2001
16000000	OLIGOCHAETA	**UNIDENTIFIED**				0	20	0	Pennak 1978

CAMP CREEK

Location- 30 ft downstream of Racoon Rd bridge.

SAMPLENUM- 20050930-37-32

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	0	0	1	Hitchcock 1974
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	1	0	0	Hilsenhoff 1995
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	7	17	23	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	2	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	2	0	2	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	3	0	0	Hilsenhoff 1995,82
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	4	0	0	Needham et al. 2000
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	4	1	5	Hilsenhoff 1985b
04010205	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	GELIDUM	1.0	6	6	1	Hilsenhoff 1985b
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			2	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	12	3	10	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	2	5	5	Schmude, Hils. 1986
04040208	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	SCALARIS	2.0	1	1	2	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	3	8	14	Schmude, Hils. 1986
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
04080501	TRICHOPTERA	LIMNAPHILIDAE	HYDATOPHYLAX	ARGUS	2.0	0	0	1	Hilsenhoff 1995
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	68	119	116	Hilsenhoff 1995,82
04120400	TRICHOPTERA	PHRYGANEIDAE	PTILOSTOMIS	**UNIDENTIFIED**	5.0	1	0	0	Hilsenhoff 1995

04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	2	0	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	2	2	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	1	6	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	6	2	3	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	3	0	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	0	1	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	4	3	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCLADIUS	**UNIDENTIFIED**	4.0	1	0	0	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	0	1	0	Epler 2001
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	1	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	3	28	10	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	1	Epler 2001
08305402	DIPTERA	ORTHOCLADIINAE	N.	BRANCHICOLUS	3.0	0	1	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	0	0	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	1	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	1	1	Epler 2001
08330000	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**			0	1	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	0	0	Holsinger 1972

COMET CREEK

Location- 120 ft downstream of Hwy 49 bridge

SAMPLENUM- 20040428-37-33

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01020203	PLECOPTERA	CHLOROPERLIDAE	HAPLOPERLA	ORPHA		0	1	0	Hitchcock 1974
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	1	0	1	Hilsenhoff 1995,82

02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	0	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	1	1	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	1	0	Hilsenhoff 1995,82
02050100	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	**UNIDENTIFIED**		0	11	0	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	3	0	3	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	0	1	0	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		0	1	1	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	4	0	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	13	9	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	0	1	1	Hilsenhoff 1985b
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	5	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	1	1	1	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	1	3	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	0	1	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	0	1	Hilsenhoff 1995
04080100	TRICHOPTERA	LIMNEPHILIDAE	ANABOLIA	**UNIDENTIFIED**	5.0	1	0	0	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
04110000	TRICHOPTERA	PHILOPOTAMIDAE	**UNIDENTIFIED**			0	0	1	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	2	2	2	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	11	5	11	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	4	7	3	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	4	2	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	3	0	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	0	0	4	Hilsenhoff 1985
08110301	DIPTERA	SIMULIIDAE	PROSIMULIUM	MYSTICUM	2.0	1	0	1	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	1	2	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		10	1	3	Epler 2001

08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		0	1	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	71	55	54	Epler 2001
08300401	DIPTERA	ORTHOCLADIINAE	BRILLIA	FLAVIFRONS	5.0	0	0	1	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	1	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	1	1	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCADIUS	**UNIDENTIFIED**	4.0	0	0	1	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	0	0	1	Epler 2001
08302900	DIPTERA	ORTHOCLADIINAE	PARAKIEFFERIELLA	**UNIDENTIFIED**		0	2	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	11	11	8	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	6	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	2	4	3	Epler 2001
08306900	DIPTERA	ORTHOCLADIINAE	HELENIELLA	**UNIDENTIFIED**		0	0	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	3	1	2	Epler 2001
08310400	DIPTERA	TANYTARSINI	PARATANYTARSUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08310700	DIPTERA	TANYTARSINI	STEMPELLINELLA	**UNIDENTIFIED**	4.0	3	3	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	8	4	9	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			3	0	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	1	1	0	Epler 2001
08321300	DIPTERA	CHIRONOMINI	DICROTENDIPES	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	0	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	2	0	0	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	1	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	1	2	Epler 2001
09020101	AMPHIPODA	HYALELLIDAE	HYALLELA	AZTECA	8.0	0	1	2	Holsinger 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		1	2	0	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		14	3	10	Pennak 1978

COMET CREEK

Location- 120 ft downstream of Hwy 49 bridge

SAMPLENUM- 20050930-37-33

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	0	0	1	Hitchcock 1974
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	0	1	0	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	0	0	1	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	0	0	1	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	4	11	4	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	1	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	7	0	3	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	51	18	32	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	0	1	Hilsenhoff 1995,82
03020102	ODONATA	CALOPTERYGIDAE	CALOPTERYX	MACULATA	5.0	2	1	1	Needham et al. 2000
03030500	ODONATA	COENAGRIONIDAE	ENALLAGMA	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995
03040100	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	7	1	Hilsenhoff 1995
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	2	3	1	Hilsenhoff 1995
04070100	TRICHOPTERA	LEPTOCERIDAE	CERACLEA	**UNIDENTIFIED**	3.0	0	2	1	Hilsenhoff 1995
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		1	1	1	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNAPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	5	6	6	Hilsenhoff 1995
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	1	0	0	Hilsenhoff 1995,82
04130400	TRICHOPTERA	POLYCENTROPODIDAE	POLYCENTROPUS	**UNIDENTIFIED**	6.0	0	1	2	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	1	3	Hilsenhoff 1995
05020100	MEGALOPTERA	SIALIDAE	SIALIS	**UNIDENTIFIED**	4.0	3	0	0	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	3	0	3	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	2	2	0	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	5	0	1	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	2	0	Hilsenhoff 1995

08110201	DIPTERA	SIMULIIDAE	SIMULIUM	AUREUM	7.0	0	0	1	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	7	0	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	0	1	2	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	2	1	0	Hilsenhoff 1995
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			0	0	4	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	12	13	16	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	4	1	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		1	1	6	Epler 2001
08273700	DIPTERA	TANYPODINAE	A. (ABLABESMYIA)	**UNIDENTIFIED**	8.0	2	0	0	Epler 2001
08274200	DIPTERA	TANYPODINAE	P. (HOLOTANYPUS)	**UNIDENTIFIED**	9.0	3	4	5	Epler 2001
08274500	DIPTERA	TANYPODINAE	THIENEMANNIMYIA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	1	1	Epler 2001
08300200	DIPTERA	ORTHOCLADIINAE	ACRICOTOPUS	**UNIDENTIFIED**	10.0	0	1	0	Epler 2001
08300400	DIPTERA	ORTHOCLADIINAE	BRILLIA	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	1	4	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	0	0	1	Epler 2001
08300920	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	ANNULATOR COMPLEX	7.0	0	1	0	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCLADIUS	**UNIDENTIFIED**	4.0	3	11	3	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCCLADIUS	**UNIDENTIFIED**		0	1	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	1	2	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	4	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	1	1	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	5	3	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	0	0	3	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	2	1	Epler 2001
08321303	DIPTERA	CHIRONOMINI	DICROTENDIPES	FUMIDUS	8.0	1	9	9	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	8	1	3	Epler 2001

08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	3	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	1	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	0	1	0	Holsinger 1972
09020101	AMPHIPODA	HYALELLIDAE	HYALLELA	AZTECA	8.0	2	7	10	Holsinger 1972

COMET CREEK

Location- 60 ft downstream of Much Rd bridge
 SAMPLENUM- 20040428-59-34

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01020203	PLECOPTERA	CHLOROPERLIDAE	HAPLOPERLA	ORPHA		0	0	1	Hitchcock 1974
01040100	PLECOPTERA	NEMOURIDAE	AMPHINEMURA	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	0	0	1	Hilsenhoff 1995
01060401	PLECOPTERA	PERLODIDAE	ISOPERLA	BILINEATA	4.0	1	0	0	Hilsenhoff 1981,82
01060403	PLECOPTERA	PERLODIDAE	ISOPERLA	COTTA	1.0	3	0	0	Hilsenhoff 1981,82
01060405	PLECOPTERA	PERLODIDAE	ISOPERLA	FRISONI	0.0	0	0	5	Hilsenhoff 1981,82
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	3	5	3	Hilsenhoff 1995,82
01060412	PLECOPTERA	PERLODIDAE	ISOPERLA	TRANSMARINA	0.0	0	2	0	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	2	2	3	Hilsenhoff 1995,82
02040400	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	**UNIDENTIFIED**		0	2	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	13	19	52	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	3	2	Hilsenhoff 1995,82
02040414	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	D. DOROTHEA	1.0	0	1	4	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	6	0	Hilsenhoff 1995,82
02050100	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	**UNIDENTIFIED**		1	0	5	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	1	1	1	Hilsenhoff 1995,82
02060201	EPHEMEROPTERA	HEPTAGENIIDAE	EPEORUS	VITREUS	0.0	3	7	0	Hilsenhoff 1995,82
02060602	EPHEMEROPTERA	HEPTAGENIIDAE	STENONEMA	FEMORATUM	5.0	1	0	2	Hilsenhoff 1995,82

02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	4	1	8	Hilsenhoff 1995,82
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	0	0	2	Needham et al. 2000
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	1	0	2	Hilsenhoff 1985b
04010108	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	**PUPA**		0	0	2	Wiggins 1996
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	3	2	2	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	1	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	5	2	20	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	1	1	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	14	9	9	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	3	12	9	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	15	37	22	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	11	24	4	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	2	1	Hilsenhoff 1995
08031900	DIPTERA	CERATOPOGONIDAE	CERATOPOGON	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	2	0	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	0	3	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	4	2	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		2	1	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	6	7	7	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	1	0	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	3	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	6	1	1	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCLADIUS	**UNIDENTIFIED**	4.0	0	0	1	Epler 2001
08302900	DIPTERA	ORTHOCLADIINAE	PARAKIEFFERIELLA	**UNIDENTIFIED**		0	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	2	4	2	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001

08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	5	3	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	0	0	1	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	6	0	3	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	0	1	Epler 2001
08306900	DIPTERA	ORTHOCLADIINAE	HELENIELLA	**UNIDENTIFIED**		1	2	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	63	33	22	Epler 2001
08310501	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**PUPA**		1	0	2	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	12	8	8	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	3	1	2	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	0	0	4	Holsinger 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		2	0	3	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		0	0	4	Pennak 1978

COMET CREEK

Location- 60 ft downstream of Much Rd bridge

SAMPLENUM- 20050930-59-34

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010000	PLECOPTERA	CAPNIIDAE	**UNIDENTIFIED**			0	1	2	Hilsenhoff 1995
01060400	PLECOPTERA	PERLODIDAE	ISOPERLA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	0	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	42	17	60	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	1	1	0	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	1	0	0	Hilsenhoff 1995,82
03060500	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	**UNIDENTIFIED**	1.0	1	1	1	Hilsenhoff 1995
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	12	19	4	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	1	0	0	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	16	22	19	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	0	2	Hilsenhoff 1995

04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	16	4	13	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	2	2	4	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	9	35	38	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	0	1	0	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPTOCHE	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
04110201	TRICHOPTERA	PHILOPOTAMIDAE	DOLOPHIODES	DISTINCTUS	0.0	1	0	0	Hilsenhoff 1995,82
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	0	1	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	9	8	11	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	22	18	16	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	2	2	4	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	3	1	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	7	3	5	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	1	1	9	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	2	2	3	Epler 2001
08272300	DIPTERA	TANYPODINAE	RHEOPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08273700	DIPTERA	TANYPODINAE	A. (ABLABESMYIA)	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			0	1	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	3	1	2	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	4	5	4	Holsinger 1972

COMET CREEK

Location- 90 ft upstream of Bergen Rd bridge

SAMPLENUM- 20040428-69-35

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	1	0	0	Hilsenhoff 1995

01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	3	2	5	Hilsenhoff 1995,82
01060411	PLECOPTERA	PERLODIDAE	ISOPERLA	SLOSSONAE	2.0	1	0	0	Hilsenhoff 1995,82
01070100	PLECOPTERA	PTERONARCYS	PTERONARCYS	**UNIDENTIFIED**	0.0	1	0	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	1	0	2	Hilsenhoff 1995,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	2	0	0	Hilsenhoff 1995,82
02040400	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	**UNIDENTIFIED**		1	0	2	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	24	18	24	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	1	0	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	4	6	21	Hilsenhoff 1995,82
02040603	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	FRISONI		9	12	8	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	0	0	1	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		3	0	3	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	0	0	2	Hilsenhoff 1995,82
03060500	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	**UNIDENTIFIED**	1.0	1	0	2	Hilsenhoff 1995
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	10	16	22	Hilsenhoff 1985b
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	1	2	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	6	3	8	Hilsenhoff 1995
04040200	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	**UNIDENTIFIED**		1	0	2	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	0	1	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	3	3	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	3	2	1	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	1	0	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	1	1	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	4	0	3	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	2	0	2	Neunzig 1966
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	1	1	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	17	21	26	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	14	10	11	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	3	15	Hils., Schmude 1992

07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	1	0	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	17	15	23	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		6	1	0	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08271400	DIPTERA	TANYPODINAE	LARSIA	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	4	0	0	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	3	8	4	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	1	1	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	6	1	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	8	8	4	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	3	6	2	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	0	2	0	Epler 2001
08305402	DIPTERA	ORTHOCLADIINAE	N.	BRANCHICOLUS	3.0	0	0	1	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	11	1	1	Epler 2001
08306900	DIPTERA	ORTHOCLADIINAE	HELENIELLA	**UNIDENTIFIED**		2	1	1	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	12	28	18	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	8	1	2	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	4	3	3	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	1	0	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	7	17	22	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	8	1	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	0	1	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	1	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	0	0	Holsinger 1972

COMET CREEK

Location- 90 ft upstream of Bergen Rd bridge

SAMPLENUM- 20050930-69-35

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	1	0	0	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	1	2	4	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	1	2	0	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	1	0	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	1	0	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	17	2	0	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	23	17	23	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	4	20	17	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	1	2	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	0	0	2	Hilsenhoff 1995,82
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			3	1	1	Hilsenhoff 1995
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	12	5	10	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	3	8	13	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	2	1	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	1	1	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	12	2	4	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	7	4	16	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	1	1	2	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	4	2	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	5	18	22	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	3	11	Schmude, Hils. 1986
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	4	1	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	0	2	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	11	6	Hilsenhoff 1995

07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	10	20	14	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	5	6	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	1	0	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	1	1	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	7	6	4	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	2	1	1	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	4	0	0	Epler 2001
08271000	DIPTERA	TANYPODINAE	HELOPELOPIA	**UNIDENTIFIED**	6.0	3	0	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		1	0	1	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		2	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	1	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	0	1	Epler 2001
08305500	DIPTERA	ORTHOCLADIINAE	ORTHOCLADIUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	4	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	2	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	7	1	3	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	11	3	2	Holsinger 1972

ENGBRETSON CREEK

Location- 50 ft downstream of railroad crossing.

SAMPLENUM- 20040426-69-18

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	3	2	2	Hilsenhoff 1995
04040701	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	ALHEDRA	3.0	0	0	1	Schmude, Hils. 1986
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	5	0	4	Hilsenhoff 1995,82

04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	4	4	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	0	2	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	0	3	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	4	0	1	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	92	31	33	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	3	0	0	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	4	2	0	Hilsenhoff 1995
08030000	DIPTERA	CERATOPOGONIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	5	15	10	Hilsenhoff 1995
08071600	DIPTERA	EMPIDIDAE	**PUPA**			0	0	4	Hilsenhoff 1995
08110215	DIPTERA	SIMULIIDAE	SIMULIUM	VENUSTUM	5.0	1	0	0	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	4	6	Hilsenhoff 1985
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	3	1	7	Hilsenhoff 1985
08110242	DIPTERA	SIMULIIDAE	SIMULIUM	PARNASSUM		0	0	1	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		4	1	4	Hilsenhoff 1985
08110700	DIPTERA	SIMULIIDAE	**PUPA**			3	0	0	Hilsenhoff 1985
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		11	1	0	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	2	3	3	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	1	1	0	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	0	1	Epler 2001
08300600	DIPTERA	ORTHOCLADIINAE	CHAETOCLADIUS	**UNIDENTIFIED**	6.0	0	1	1	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		4	1	2	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	1	1	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	2	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	2	0	0	Epler 2001
08323000	DIPTERA	CHIRONOMINI	PARACLADOPELMA	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	1	0	0	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	4	2	18	Epler 2001

08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	49	68	57	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	2	0	0	Holsinger 1972
09020101	AMPHIPODA	HYALELLIDAE	HYALLELA	AZTECA	8.0	2	0	4	Holsinger 1972
10010100	ISOPODA	ASELLIDAE	CAECIDOTEA	**UNIDENTIFIED**		0	1	1	Williams 1972
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			0	1	2	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		13	12	6	Pennak 1978

ENGIBRETSON CREEK

Location- 50 ft downstream of railroad crossing.

SAMPLENUM- 20051002-69-18

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040301	PLECOPTERA	NEMOURIDAE	PROSTOIA	COMPLETA	1.0	1	0	0	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	1	2	1	Hilsenhoff 1995
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	2	0	0	Hilsenhoff 1995,82
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	1	3	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	13	18	8	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	1	1	5	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
04040704	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	MOROSA BIFIDA FORM	6.0	1	2	2	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	2	0	4	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	0	2	Schmude, Hils. 1986
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	7	36	17	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	1	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	0	0	Neunzig 1966

07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	2	5	4	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	5	10	13	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	14	48	24	Hilsenhoff 1995
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	43	48	22	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	3	3	2	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	1	0	7	Hilsenhoff 1985
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	2	0	0	Hilsenhoff 1985
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	2	5	1	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	1	0	2	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	1	0	0	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		2	3	8	Epler 2001
08303100	DIPTERA	ORTHOCLADIINAE	PARAPHAENOCLADIUS	**UNIDENTIFIED**		2	0	0	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	0	3	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	14	0	2	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	11	31	24	Epler 2001
08326500	DIPTERA	CHIRONOMINI	S.	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		3	1	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	0	1	0	Holsinger 1972

FLUME CREEK

Location- 30 ft downstream of Cnty I culvert

SAMPLENUM- 20040427-50-26

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01020203	PLECOPTERA	CHLOROPERLIDAE	HAPLOPERLA	ORPHA		0	0	1	Hitchcock 1974

02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	0	0	3	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	0	2	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	1	1	1	Hilsenhoff 1995,82
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	26	11	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	12	4	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	1	1	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	6	15	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	0	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	0	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	0	0	Hilsenhoff 1995
04070100	TRICHOPTERA	LEPTOCERIDAE	CERACLEA	**UNIDENTIFIED**	3.0	0	0	2	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNAPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	0	Neunzig 1966
07020204	COLEOPTERA	ELMIDAE	DUBIRAPHIA	VITTATA	6.0	0	0	1	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	7	0	2	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	3	1	4	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	4	1	2	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	0	1	Hils., Schmude 1992
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	0	1	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	7	4	3	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		7	5	3	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	54	63	99	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	1	0	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	2	1	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	1	0	0	Epler 2001
08302900	DIPTERA	ORTHOCLADIINAE	PARAKIEFFERIELLA	**UNIDENTIFIED**		0	0	3	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	6	6	Epler 2001

08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	1	1	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	1	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	4	10	3	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			0	0	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	4	2	0	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	3	1	3	Epler 2001
08326000	DIPTERA	CHIRONOMINI	P. (POLYPEDILUM)	**UNIDENTIFIED**	6.0	1	4	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	3	0	Epler 2001
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		1	0	0	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		0	1	0	Pennak 1978

FLUME CREEK

Location- 30 ft downstream of Cnty I culvert

SAMPLENUM- 20050930-50-26

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01060400	PLECOPTERA	PERLODIDAE	ISOPERLA	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	0	1	2	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	1	1	0	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	8	3	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	1	0	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	1	1	0	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	0	0	2	Hilsenhoff 1985b
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	4	1	0	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	15	12	18	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	29	27	1	Hilsenhoff 1995
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			0	1	0	Hilsenhoff 1995

04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	10	1	7	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	14	7	7	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	3	1	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	1	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	0	1	Hilsenhoff 1995
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		0	1	1	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	0	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	3	2	9	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	1	8	2	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	0	1	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	6	0	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	3	0	Hils., Schmude 1992
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	11	4	8	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	0	0	2	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	1	0	0	Hilsenhoff 1995
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			1	1	0	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	2	0	Epler 2001
08271801	DIPTERA	TANYPODINAE	NATARSIA	BALTIMOREA	8.0	0	3	0	Epler 2001
08273001	DIPTERA	TANYPODINAE	ZAVRELIMYIA	SINUOSA	8.0	1	0	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		4	4	2	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	2	0	0	Epler 2001
08300909	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	ANNULATOR	7.0	3	0	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	11	12	1	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	3	4	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	2	3	0	Epler 2001
08303404	DIPTERA	ORTHOCLADIINAE	P.	PILOSUS	8.0	0	1	0	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001

08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	10	2	4	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	0	4	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	9	1	5	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	1	0	1	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			2	1	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	7	5	36	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	2	0	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		1	0	1	Epler 2001

FLUME CREEK

Location- 40 ft upstream of Cnty T bridge.

SAMPLENUM- 20040427-50-25

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	1	4	Hilsenhoff 1995,82
02040400	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	**UNIDENTIFIED**		0	2	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	5	6	4	Hilsenhoff 1995,82
02040405	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	NEEDHAMI	2.0	0	7	0	Hilsenhoff 1995,82
02040500	EPHEMEROPTERA	EPHEMERELLIDAE	EURYLOPHELLA	**UNIDENTIFIED**		3	0	0	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	2	4	Hilsenhoff 1995,82
02040603	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	FRISONI		0	4	28	Hilsenhoff 1995,82
02060602	EPHEMEROPTERA	HEPTAGENIIDAE	STENONEMA	FEMORATUM	5.0	0	0	1	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	0	1	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	1	3	2	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	1	3	0	Hilsenhoff 1985b

04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	15	3	4	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	0	1	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	1	1	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	2	2	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	3	0	3	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	1	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	23	16	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	11	19	13	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	4	4	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	5	0	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	1	1	0	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	0	0	1	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	3	15	15	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		0	5	0	Epler 2001
08280000	DIPTERA	DIAMESINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	30	30	18	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	0	1	4	Epler 2001
08280300	DIPTERA	DIAMESINAE	POTTHASTIA	**UNIDENTIFIED**	2.0	0	0	1	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	2	0	2	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	1	2	2	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		0	1	0	Epler 2001
08302900	DIPTERA	ORTHOCLADIINAE	PARAKIEFFERIELLA	**UNIDENTIFIED**		1	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	2	2	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	18	29	34	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	0	1	Epler 2001
08310700	DIPTERA	TANYTARSINI	STEMPELLINELLA	**UNIDENTIFIED**	4.0	0	0	1	Epler 2001

08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	5	9	9	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	2	2	Holsinger 1972

FLUME CREEK

Location- 40 ft upstream of Cnty T bridge.

SAMPLENUM- 20050930-50-25

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	0	1	0	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	1	0	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	2	0	0	Hilsenhoff 1995,82
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	12	10	51	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	9	0	1	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	6	1	1	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	18	11	9	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	8	6	3	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	0	1	Schmude, Hils. 1986
04040701	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	ALHEDRA	3.0	0	0	1	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	7	3	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	2	3	2	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	40	7	7	Hilsenhoff 1995
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	22	1	4	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	35	9	18	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	1	2	2	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	1	Hilsenhoff 1995
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		1	0	0	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	13	9	13	Hilsenhoff 1995

08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCLADIUS	**UNIDENTIFIED**		1	0	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	1	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	2	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	30	81	82	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	25	1	3	Holsinger 1972

FLUME CREEK

Location- 80 ft downstream of Cnty C bridge

SAMPLENUM- 20040429-69-37

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040201	PLECOPTERA	NEMOURIDAE	NEMOURA	TRISPINOSA	1.0	0	0	1	Hilsenhoff 1995
01070100	PLECOPTERA	PTERONARCYIDAE	PTERONARCYS	**UNIDENTIFIED**	0.0	1	0	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	0	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	1	3	6	Hilsenhoff 1995,82
02040405	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	NEEDHAMI	2.0	0	0	1	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	0	3	0	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	1	0	2	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	0	0	Hilsenhoff 1995,82
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			0	1	0	Hilsenhoff 1995
03060505	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	RUPINSULENSIS	1.0	1	0	1	Needham et al. 2000
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	0	1	1	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	0	3	6	Hilsenhoff 1985b
04010300	TRICHOPTERA	BRACHYCENTRIDAE	**PUPA**			0	0	1	Merritt, Cummins 84
04020200	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**UNIDENTIFIED**	0.0	1	0	0	Hilsenhoff 1995
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	23	14	35	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	13	8	5	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	1	1	1	Hilsenhoff 1995
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995

04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	2	4	3	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	0	8	Schmude, Hils. 1986
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	1	0	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	53	22	17	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	7	1	6	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	2	8	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	2	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	4	1	1	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	2	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	1	1	Hilsenhoff 1995
08110202	DIPTERA	SIMULIIDAE	SIMULIUM	CROXTONI	1.0	0	0	2	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	8	9	13	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		8	2	5	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	1	1	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	0	1	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	1	2	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	5	3	2	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	0	0	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	1	0	1	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	3	3	1	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	24	61	68	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	0	1	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	2	2	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	8	1	3	Epler 2001

08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	3	4	2	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	0	1	0	Epler 2001
08323000	DIPTERA	CHIRONOMINI	PARACLADOPELMA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	0	3	0	Epler 2001
08326000	DIPTERA	CHIRONOMINI	P. (POLYPEDILUM)	**UNIDENTIFIED**	6.0	0	2	0	Epler 2001
08326012	DIPTERA	CHIRONOMINI	P. (POLYPEDILUM)	LAETUM	4.0	0	1	0	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	0	0	1	Epler 2001

FLUME CREEK

Location- 80 ft downstream of Cnty C bridge

SAMPLENUM- 20050930-69-37

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	1	0	0	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	1	2	0	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	1	0	0	Hilsenhoff 1995,82
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	1	2	1	Hilsenhoff 1995,82
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	3	2	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	0	0	2	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	1	0	0	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	0	1	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	0	0	1	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	3	0	Hilsenhoff 1995,82
03060505	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	RUPINSULENSIS	1.0	1	0	0	Needham et al. 2000
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	1	0	0	Hilsenhoff 1985b
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	3	5	16	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	3	12	4	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	2	1	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	3	9	8	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	42	2	34	Hilsenhoff 1995

04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	4	12	6	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	9	4	7	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	1	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	3	3	4	Schmude, Hils. 1986
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	1	0	0	Hilsenhoff 1995
04070600	TRICHOPTERA	LEPTOCERIDAE	SETODES	**UNIDENTIFIED**	2.0	0	0	2	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	1	3	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	10	28	13	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	14	5	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	18	9	12	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	1	0	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	2	2	2	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	0	1	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	5	10	4	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		2	3	0	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	1	0	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			0	2	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	8	1	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			1	0	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	7	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	11	1	6	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	2	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	0	0	Holsinger 1972

GRIFFIN CREEK

Location 60 ft downstream of first culvert West of Snurred Rd.

SAMPLENUM- 20040430-69-45

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040101	PLECOPTERA	NEMOURIDAE	AMPHINEMURA	DELOSA	3.0	133	128	115	Hilsenhoff 1995
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	1	0	0	Hilsenhoff 1995,82
02010103	EPHEMEROPTERA	BAETIDAE	BAETIS	INTERCALARIS	6.0	0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	1	1	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	1	0	Hilsenhoff 1995,82
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	1	2	Bright 2003
04020202	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	NIGRIOR	0.0	0	0	2	Bright 2003
04020203	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**PUPA**		0	1	0	Merritt, Cummins 96
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	2	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	0	1	Hilsenhoff 1995
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	1	1	Schmude, Hils. 1986
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	1	1	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	16	38	21	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	4	12	10	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	3	5	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	1	1	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		16	32	7	Hilsenhoff 1995
08110201	DIPTERA	SIMULIIDAE	SIMULIUM	AUREUM	7.0	0	0	1	Hilsenhoff 1985
08110202	DIPTERA	SIMULIIDAE	SIMULIUM	CROXTONI	1.0	4	0	0	Hilsenhoff 1985
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	19	12	3	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	33	3	20	Hilsenhoff 1985
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	5	0	0	Hilsenhoff 1985
08110243	DIPTERA	SIMULIIDAE	SIMULIUM	LONGISTYLATUM		0	2	0	Hilsenhoff 1985

08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		12	0	14	Hilsenhoff 1985
08110501	DIPTERA	SIMULIIDAE	STEGOPTERNA	MUTATA	5.0	15	10	10	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	2	1	4	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	3	1	3	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	1	1	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	3	0	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	0	2	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		6	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	13	3	0	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	3	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	5	6	5	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	2	2	2	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	2	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	2	1	1	Holsinger 1972

GRIFFIN CREEK

Location 60 ft downstream of first culvert West of Snurred Rd.

SAMPLENUM- 20051003-69-45

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010000	PLECOPTERA	CAPNIIDAE	**UNIDENTIFIED**			0	2	6	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	0	1	1	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	15	25	19	Hilsenhoff 1995
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	1	0	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	1	1	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	11	3	6	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	0	0	1	Hilsenhoff 1995,82
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	1	0	0	Needham et al. 2000

04020202	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	NIGRIOR	0.0	2	0	2	Bright 2003
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	2	1	6	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	2	2	Hilsenhoff 1995
04040208	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	SCALARIS	2.0	2	0	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	1	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	1	1	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	0	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	6	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	36	33	35	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	26	20	23	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	10	10	12	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	2	4	6	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	1	2	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	0	0	1	Hilsenhoff 1985
08110218	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	4.0	0	1	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	3	2	2	Hilsenhoff 1995
08130500	DIPTERA	TABANIDAE	HYBOMITRA	**UNIDENTIFIED**	5.0	1	0	2	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	2	2	0	Hilsenhoff 1995
08301200	DIPTERA	ORTHOCLADIINAE	DIPLOCLADIUS	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		0	0	1	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCLADIUS	**UNIDENTIFIED**		0	0	3	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	1	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	0	2	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	15	8	8	Holsinger 1972

HOLT CREEK

Location- 120 ft downstream of Holt Rd. culvert.

SAMPLENUM- 20040515-37-30

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040100	PLECOPTERA	NEMOURIDAE	AMPHINEMURA	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995
01060412	PLECOPTERA	PERLODIDAE	ISOPERLA	TRANSMARINA	0.0	0	0	1	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	0	2	Hilsenhoff 1995,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGHI	5.0	4	2	0	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	2	0	0	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	0	2	Hilsenhoff 1995,82
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	0	2	0	Hilsenhoff 1985b
04020200	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**UNIDENTIFIED**	0.0	0	2	0	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	1	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	2	6	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	0	1	20	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	1	0	13	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	0	4	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	0	1	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	4	1	0	Hilsenhoff 1995
08190200	DIPTERA	PTYCHOPTERIDAE	PTYCHOPTERA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		19	18	15	Epler 2001
08270300	DIPTERA	TANYPODINAE	APSECTROTANYPUS	**UNIDENTIFIED**		0	1	0	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	1	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	20	12	25	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	2	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	0	0	Epler 2001
08301605	DIPTERA	ORTHOCLADIINAE	HETEROTRISSOCLADI	MARCIDUS	0.0	0	1	0	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		0	1	0	Epler 2001
08302900	DIPTERA	ORTHOCLADIINAE	PARAKIEFFERIELLA	**UNIDENTIFIED**		0	2	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	35	13	14	Epler 2001

08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	4	7	2	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	0	0	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			1	2	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	12	14	13	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08310700	DIPTERA	TANYTARSINI	STEMPELLINELLA	**UNIDENTIFIED**	4.0	0	30	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	13	22	11	Epler 2001
08323200	DIPTERA	CHIRONOMINI	PARATENDIPES	**UNIDENTIFIED**	8.0	0	0	2	Epler 2001
08325903	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	TRITUM	6.0	0	1	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	0	2	3	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	9	5	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	3	4	2	Epler 2001
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		2	1	8	Pennak 1978

HOLT CREEK

Location- 120 ft downstream of Holt Rd. culvert.

SAMPLENUM- 20050930-37-30

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	15	30	47	Hitchcock 1974
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	0	1	0	Hilsenhoff 1995
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	2	0	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	4	0	0	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	0	0	1	Hilsenhoff 1995,82
02010103	EPHEMEROPTERA	BAETIDAE	BAETIS	INTERCALARIS	6.0	1	0	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	6	9	10	Hilsenhoff 1995,82

02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	2	4	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	20	21	22	Hilsenhoff 1995,82
03020201	ODONATA	CALOPTERYGIDAE	HETAERINA	AMERICANA	6.0	1	0	0	Needham et al. 2000
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	11	3	6	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	1	1	0	Bright 2003
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	23	17	29	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	0	1	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	11	3	5	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	2	1	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	1	0	2	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	2	1	2	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	17	12	13	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	11	14	12	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	4	7	11	Hils., Schmude 1992
08100100	DIPTERA	PSYCHODIDAE	PERICOMA	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	2	0	Hilsenhoff 1995
08140000	DIPTERA	TIPULIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	6	3	6	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	1	2	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08271801	DIPTERA	TANYPODINAE	NATARSIA	BALTIMOREA	8.0	0	0	1	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		1	0	0	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCADIUS	**UNIDENTIFIED**		1	2	2	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	1	4	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	0	0	Epler 2001

HOLT CREEK

Location- 40 ft downstream of Hwy 49 bridge

SAMPLENUM- 20040427-50-29

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	0	1	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	6	4	1	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	3	1	6	Hilsenhoff 1995,82
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	0	0	1	Needham et al. 2000
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			0	2	1	Hilsenhoff 1995
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	1	5	0	Hilsenhoff 1985b
04020200	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**UNIDENTIFIED**	0.0	2	0	0	Hilsenhoff 1995
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	3	4	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	8	27	23	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	2	0	1	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	1	0	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		1	0	1	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	2	0	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	3	2	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	2	7	Schmude, Hils. 1986
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	0	1	1	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNAPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	0	1	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	1	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	2	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	0	1	Neunzig 1966
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	1	0	4	Hilsenhoff 1995
07020204	COLEOPTERA	ELMIDAE	DUBIRAPHIA	VITTATA	6.0	1	0	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	5	32	36	Hilsenhoff 1995

07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	3	11	11	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	0	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	13	2	8	Hilsenhoff 1995
08030000	DIPTERA	CERATOPOGONIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
08031900	DIPTERA	CERATOPOGONIDAE	CERATOPOGON	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	10	3	7	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	0	2	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	3	0	1	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	1	2	2	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	5	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	6	12	4	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	0	0	4	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		3	1	3	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	8	3	3	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	1	0	0	Epler 2001
08280301	DIPTERA	DIAMESINAE	POTTHASTIA	GAEDII GROUP	2.0	0	0	1	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	4	0	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	4	3	5	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCADIUS	**UNIDENTIFIED**	4.0	0	0	1	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	2	2	1	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		9	12	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	9	6	9	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	1	2	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	2	3	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	4	3	1	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	2	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	3	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	8	0	1	Epler 2001

08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			1	0	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	3	1	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	3	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	2	0	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	6	2	3	Epler 2001
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		1	0	1	Pennak 1978
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			1	6	6	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		9	10	18	Pennak 1978

HOLT CREEK

Location- 40 ft downstream of Hwy 49 bridge

SAMPLENUM- 20050930-50-29

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01020200	PLECOPTERA	CHLOROPERLIDAE	HAPLOPERLA	**UNIDENTIFIED**		2	0	0	Hitchcock 1974
01060400	PLECOPTERA	PERLODIDAE	ISOPERLA	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	4	2	2	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	3	1	2	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	6	14	15	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	2	0	0	Hilsenhoff 1995,82
02050100	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	**UNIDENTIFIED**		0	1	1	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	1	1	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	1	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	8	8	1	Hilsenhoff 1995,82
02070100	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	2	0	0	Hilsenhoff 1995,82
03010401	ODONATA	AESHNIDAE	BOYERIA	VINOSA	2.0	1	1	0	Needham et al. 2000
03020201	ODONATA	CALOPTERYGIDAE	HETAERINA	AMERICANA	6.0	2	0	0	Needham et al. 2000

03060500	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	**UNIDENTIFIED**	1.0	1	5	7	Hilsenhoff 1995
03060505	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	RUPINSULENSIS	1.0	0	1	1	Needham et al. 2000
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	1	0	0	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	1	4	5	Hilsenhoff 1985b
04020202	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	NIGRIOR	0.0	0	0	1	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	2	7	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	2	17	15	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	5	0	3	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	7	4	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	2	2	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	2	0	Hilsenhoff 1995
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	2	0	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	5	6	1	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	5	15	27	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	4	20	30	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	2	0	1	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	5	2	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	4	1	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	4	2	5	Hilsenhoff 1995
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	0	0	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	3	1	3	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	3	6	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	1	0	0	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08271801	DIPTERA	TANYPODINAE	NATARSIA	BALTIMOREA	8.0	0	1	0	Epler 2001
08272300	DIPTERA	TANYPODINAE	RHEOPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08273900	DIPTERA	TANYPODINAE	A. (KARELIA)	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001

08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	1	1	0	Epler 2001
08301700	DIPTERA	ORTHOCLADIINAE	HYDROBAENUS	**UNIDENTIFIED**	8.0	0	4	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	17	0	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	0	0	Epler 2001
08310504	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	EXIGUUS GROUP	6.0	3	3	0	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	0	2	Epler 2001
08322502	DIPTERA	CHIRONOMINI	MICROTENDIPES	RYDALENSIS GROUP	6.0	1	0	0	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	0	1	0	Epler 2001
08324300	DIPTERA	CHIRONOMINI	APEDILUM	**UNIDENTIFIED**		1	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	3	0	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	1	1	Epler 2001

JACKSON CREEK

Location- 20 ft downstream of Kluck road.

SAMPLENUM- 20040512-69-64

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040100	PLECOPTERA	NEMOURIDAE	AMPHINEMURA	**UNIDENTIFIED**		2	6	7	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	1	0	1	Hilsenhoff 1995,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	35	21	14	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	1	2	1	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	11	3	2	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	4	6	3	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	21	28	63	Hilsenhoff 1995,82
03010401	ODONATA	AESHNIDAE	BOYERIA	VINOSA	2.0	0	1	0	Needham et al. 2000
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	0	0	1	Needham et al. 2000
04020202	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	NIGRIOR	0.0	0	1	0	Bright 2003
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	0	1	Hilsenhoff 1995

04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	0	8	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	3	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	4	Schmude, Hils. 1986
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	2	0	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	2	0	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	10	12	7	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	2	10	6	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	6	9	8	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	0	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	0	0	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	0	1	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	1	1	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	1	0	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		0	0	1	Hilsenhoff 1985
08110300	DIPTERA	SIMULIIDAE	PROSIMULIUM	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		3	21	10	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08272300	DIPTERA	TANYPODINAE	RHEOPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	2	0	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		1	0	0	Epler 2001
08274200	DIPTERA	TANYPODINAE	P. (HOLOTANYPUS)	**UNIDENTIFIED**	9.0	1	0	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	1	1	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCLADIUS	**UNIDENTIFIED**	4.0	2	0	0	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		1	0	0	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCLADIUS	**UNIDENTIFIED**		1	0	0	Epler 2001

08302900	DIPTERA	ORTHOCLADIINAE	PARAKIEFFERIELLA	**UNIDENTIFIED**		1	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	1	10	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	2	2	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	0	0	1	Epler 2001
08305402	DIPTERA	ORTHOCLADIINAE	N.	BRANCHICOLUS	3.0	1	0	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	5	1	2	Epler 2001
08306900	DIPTERA	ORTHOCLADIINAE	HELENIELLA	**UNIDENTIFIED**		0	1	1	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	9	6	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	2	0	Epler 2001
08310700	DIPTERA	TANYTARSINI	STEMPELLINELLA	**UNIDENTIFIED**	4.0	1	5	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	2	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	0	0	Holsinger 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		7	0	0	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		1	4	0	Pennak 1978

JACKSON CREEK

Location- 20 ft downstream of Kluck road.

SAMPLENUM- 20050930-69-64

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	0	1	0	Hitchcock 1974
01020000	PLECOPTERA	CHLOROPERLIDAE	**UNIDENTIFIED**			2	0	0	Hitchcock 1974
01060408	PLECOPTERA	PERLODIDAE	ISOPERLA	NANA	5.0	1	2	0	Hilsenhoff 1981,82

01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	0	2	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	5	5	2	Hilsenhoff 1995
02010000	EPHEMEROPTERA	BAETIDAE	**UNIDENTIFIED**			0	0	3	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	0	4	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	9	6	3	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	0	5	7	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	3	1	3	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	1	1	5	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	12	13	10	Hilsenhoff 1995,82
03020102	ODONATA	CALOPTERYGIDAE	CALOPTERYX	MACULATA	5.0	1	0	12	Needham et al. 2000
03020201	ODONATA	CALOPTERYGIDAE	HETAERINA	AMERICANA	6.0	0	2	0	Needham et al. 2000
03060500	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	**UNIDENTIFIED**	1.0	1	0	0	Hilsenhoff 1995
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	4	4	4	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	1	0	0	Hilsenhoff 1985b
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	6	4	3	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	4	2	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	22	10	1	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	2	1	4	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	2	0	2	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	0	1	0	Hilsenhoff 1995
04080700	TRICHOPTERA	LIMNEPHILIDAE	LIMNEPHILUS	**UNIDENTIFIED**	3.0	0	1	1	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	0	0	2	Hilsenhoff 1995
04110201	TRICHOPTERA	PHILOPOTAMIDAE	DOLOPHIODES	DISTINCTUS	0.0	5	0	0	Hilsenhoff 1995,82
04120400	TRICHOPTERA	PHRYGANEIDAE	PTILOSTOMIS	**UNIDENTIFIED**	5.0	1	6	2	Hilsenhoff 1995
04140101	TRICHOPTERA	PSYCHOMYIIDAE	LYPE	DIVERSA	2.0	0	0	2	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	3	5	3	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	12	6	3	Hilsenhoff 1995

07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	11	6	6	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	1	2	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	2	0	0	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	2	0	Hilsenhoff 1995
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	0	1	2	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	4	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	0	2	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	0	1	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	2	0	0	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	17	4	15	Epler 2001
08271801	DIPTERA	TANYPODINAE	NATARSIA	BALTIMOREA	8.0	0	1	3	Epler 2001
08272300	DIPTERA	TANYPODINAE	RHEOPELOPIA	**UNIDENTIFIED**	6.0	0	4	1	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	0	2	1	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		7	13	7	Epler 2001
08274500	DIPTERA	TANYPODINAE	THIENEMANNIMYIA	**UNIDENTIFIED**	6.0	4	4	8	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	1	0	1	Epler 2001
08300400	DIPTERA	ORTHOCLADIINAE	BRILLIA	**UNIDENTIFIED**	5.0	2	0	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	0	0	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCADIUS	**UNIDENTIFIED**	4.0	1	3	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	4	0	2	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	0	1	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	0	1	1	Epler 2001
08305812	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	ROBACKI	6.0	1	0	0	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	2	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001

08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	0	0	Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	0	1	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	0	1	Epler 2001

LEER CREEK

Location- 360 ft downstream of Roosevelt Rd culvert.

SAMPLENUM- 20040430-69-43

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040201	PLECOPTERA	NEMOURIDAE	NEMOURA	TRISPINOSA	1.0	1	2	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	3	4	1	Hilsenhoff 1995,82
02011002	EPHEMEROPTERA	BAETIDAE	ACENTRELLA	TURBIDA	2.0	0	0	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	2	0	0	Hilsenhoff 1995,82
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	5	0	0	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	9	0	Bright 2003
04020202	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	NIGRIOR	0.0	3	3	7	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	0	1	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	3	7	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	3	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	7	12	19	Hilsenhoff 1995
04190106	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**PUPA**		1	1	0	Merritt, Cummins 84
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	8	6	14	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	16	5	29	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	6	0	13	Hils., Schmude 1992
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	1	2	0	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	0	0	2	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	8	3	Hilsenhoff 1995
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	9	1	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	0	5	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	3	0	Epler 2001

08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	4	1	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	2	0	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	2	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	3	1	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	7	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	106	67	57	Holsinger 1972
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		1	0	0	Pennak 1978

LEER CREEK

Location- 360 ft downstream of Roosevelt Rd culvert.

SAMPLENUM- 20051003-69-43

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040201	PLECOPTERA	NEMOURIDAE	NEMOURA	TRISPINOSA	1.0	1	1	0	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	0	2	3	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	1	2	4	Hilsenhoff 1995,82
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	2	0	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	15	6	Hilsenhoff 1995,82
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	0	15	5	Hilsenhoff 1985b
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		0	0	2	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	1	0	0	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	1	1	Bright 2003
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	3	7	5	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	5	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	3	2	Hilsenhoff 1995
04110201	TRICHOPTERA	PHILOPOTAMIDAE	DOLOPHIODES	DISTINCTUS	0.0	0	0	1	Hilsenhoff 1995,82
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	0	2	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	0	7	3	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	13	9	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	0	0	Hilsenhoff 1995

08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08110244	DIPTERA	SIMULIIDAE	SIMULIUM	FIBRINFLATUM	6.0	0	0	2	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	7	1	Hilsenhoff 1995
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	1	0	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	0	1	1	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCLADIUS	**UNIDENTIFIED**		0	0	0	Epler 2001
08304300	DIPTERA	ORTHOCLADIINAE	STILOCLADIUS	**UNIDENTIFIED**		0	1	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	4	2	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	1	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	137	158	123	Holsinger 1972

LITTLE WOLF RIVER

Location- 30 ft. downstream of bridge at end of Mountain Rd.

SAMPLENUM- 20040505-37-31

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	3	0	0	Hilsenhoff 1995
01060404	PLECOPTERA	PERLODIDAE	ISOPERLA	DICALA	2.0	1	0	0	Hilsenhoff 1981,82
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	1	0	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	3	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	2	2	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	2	0	0	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	2	6	0	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	0	1	1	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	0	0	1	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	0	3	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	0	1	Hilsenhoff 1995,82
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			5	3	1	Hilsenhoff 1995

03060500	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	**UNIDENTIFIED**	1.0	0	0	1	Hilsenhoff 1995
03060505	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	RUPINSULENSIS	1.0	0	0	1	Needham et al. 2000
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	5	0	1	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	2	4	2	Hilsenhoff 1995
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	1	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	0	1	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	2	0	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	0	1	Schmude, Hils. 1986
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	1	1	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	2	0	Neunzig 1966
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	1	2	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	13	2	4	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	1	1	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	0	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	3	0	2	Hilsenhoff 1995
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	0	2	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	1	1	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	2	0	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	11	2	3	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	0	6	7	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	0	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		13	7	9	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	3	4	2	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001

08280300	DIPTERA	DIAMESINAE	POTTHASTIA	**UNIDENTIFIED**	2.0	0	0	1	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			1	1	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCLADIUS	**UNIDENTIFIED**	4.0	1	2	2	Epler 2001
08302900	DIPTERA	ORTHOCLADIINAE	PARAKIEFFERIELLA	**UNIDENTIFIED**		0	1	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	7	3	11	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	3	0	0	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			2	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	2	0	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	3	4	5	Epler 2001
08310700	DIPTERA	TANYTARSINI	STEMPELLINELLA	**UNIDENTIFIED**	4.0	7	9	20	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	24	43	32	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	1	2	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	7	6	11	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	1	0	0	Epler 2001
08323300	DIPTERA	CHIRONOMINI	PHAENOPSECTRA	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08325903	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	TRITUM	6.0	2	0	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	1	2	2	Epler 2001
08326000	DIPTERA	CHIRONOMINI	P. (POLYPEDILUM)	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	0	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	9	5	Holsinger 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		1	0	0	Pennak 1978
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			1	0	0	Pennak 1978

LITTLE WOLF RIVER

Location- 30 ft. downstream of bridge at end of Mountain Rd.

SAMPLENUM- 20050930-37-31

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
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01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	0	1	0	Hitchcock 1974
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	0	1	1	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	2	0	3	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	2	2	1	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	0	1	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	1	0	Hilsenhoff 1995,82
02040414	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	D. DOROTHEA	1.0	2	0	0	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	1	0	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	7	3	2	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	2	0	Hilsenhoff 1995,82
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	0	1	1	Needham et al. 2000
03060500	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	**UNIDENTIFIED**	1.0	0	1	3	Hilsenhoff 1995
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	2	5	11	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	4	3	6	Bright 2003
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	2	1	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	2	0	0	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	2	0	0	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	3	2	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	3	2	4	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	12	9	5	Schmude, Hils. 1986
04040708	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	WALKERI	1.0	0	1	0	Schmude, Hils. 1986
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	1	3	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	0	Neunzig 1966
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	2	0	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	22	9	10	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	22	27	34	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	31	12	11	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	7	0	0	Hilsenhoff 1995

07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	2	0	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	18	11	5	Hilsenhoff 1995
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	0	0	1	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	5	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	5	7	10	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	0	6	2	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08271801	DIPTERA	TANYPODINAE	NATARSIA	BALTIMOREA	8.0	0	0	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	9	3	0	Epler 2001
08303402	DIPTERA	ORTHOCLADIINAE	P.	FLAVUS	8.0	0	1	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	3	1	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	3	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	2	1	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	0	1	Epler 2001
08330000	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	0	1	Epler 2001
10010100	ISOPODA	ASELLIDAE	CAECIDOTEA	**UNIDENTIFIED**		0	0	1	Williams 1972

LITTLE WOLF RIVER

Location- 600 ft upstream of Cnty J bridge

SAMPLENUM- 20040428-69-36

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	0	0	1	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	0	1	1	Hilsenhoff 1995
02010100	EPHEMEROPTERA	BAETIDAE	BAETIS	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	50	39	49	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	25	27	39	Hilsenhoff 1995,82
02040405	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	NEEDHAMI	2.0	0	7	3	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	0	1	0	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	0	0	1	Hilsenhoff 1995,82
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			0	1	1	Hilsenhoff 1995
03060505	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	RUPINSULENSIS	1.0	0	1	1	Needham et al. 2000
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	3	1	0	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	1	1	8	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	30	15	28	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	3	2	1	Hilsenhoff 1995
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			0	3	1	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	6	3	4	Hilsenhoff 1995
04040701	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	ALHEDRA	3.0	0	1	1	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	8	0	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	2	0	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	30	0	11	Schmude, Hils. 1986
04070600	TRICHOPTERA	LEPTOCERIDAE	SETODES	**UNIDENTIFIED**	2.0	7	11	7	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	2	2	5	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	31	20	17	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	4	1	3	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	7	5	4	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	3	1	3	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	0	2	Hilsenhoff 1995

08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	8	3	10	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	24	30	16	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	1	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	0	3	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	1	1	2	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	5	10	8	Epler 2001
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	0	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	3	2	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	5	1	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	0	3	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	0	0	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	2	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	4	9	4	Epler 2001
08325903	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	TRITUM	6.0	5	3	1	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	1	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	0	1	Epler 2001
08326500	DIPTERA	CHIRONOMINI	S.	**UNIDENTIFIED**	5.0	0	1	0	Epler 2001

LITTLE WOLF RIVER

Location- 600 ft upstream of Cnty J bridge

SAMPLENUM- 20051001-69-36

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	2	1	0	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	4	0	1	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	6	0	2	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	7	5	6	Hilsenhoff 1995,82
02011002	EPHEMEROPTERA	BAETIDAE	ACENTRELLA	TURBIDA	2.0	1	0	0	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	1	0	0	Hilsenhoff 1995,82
02020100	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	4	1	1	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	25	9	2	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	3	0	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		6	4	5	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	10	2	5	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	7	10	6	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	7	7	Hilsenhoff 1995,82
02170100	EPHEMEROPTERA	ISONYCHIIDAE	ISONYCHIA	**UNIDENTIFIED**	2.0	1	3	0	Hilsenhoff 1995,82
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			0	0	1	Hilsenhoff 1995
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	5	1	1	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	1	1	0	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	4	4	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	15	12	27	Hilsenhoff 1995
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	1	1	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	29	25	46	Schmude, Hils. 1986
04070600	TRICHOPTERA	LEPTOCERIDAE	SETODES	**UNIDENTIFIED**	2.0	3	4	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	2	3	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	3	2	Neunzig 1966

07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	24	25	24	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	1	0	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	48	27	39	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	2	2	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	0	2	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	0	1	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		0	0	1	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	8	1	0	Hilsenhoff 1995
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	1	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		1	0	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	1	0	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	2	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	2	0	0	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	0	0	3	Epler 2001
08306600	DIPTERA	ORTHOCLADIINAE	THIENEMANNIA	**UNIDENTIFIED**		0	0	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	8	1	6	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			0	0	1	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	8	1	3	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	2	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	4	0	1	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	1	0	Epler 2001

LITTLE WOLF RIVER

**Location- 50 ft downstream of snowmobile bridge
 SAMPLENUM- 20040429-69-39**

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040201	PLECOPTERA	NEMOURIDAE	NEMOURA	TRISPINOSA	1.0	2	7	4	Hilsenhoff 1995
01040301	PLECOPTERA	NEMOURIDAE	PROSTOIA	COMPLETA	1.0	1	2	1	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	0	0	1	Hilsenhoff 1995
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	2	1	1	Hilsenhoff 1995,82
01070100	PLECOPTERA	PTERONARCYIDAE	PTERONARCYS	**UNIDENTIFIED**	0.0	0	4	1	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	5	11	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	2	1	Hilsenhoff 1995,82
02040405	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	NEEDHAMI	2.0	1	2	1	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	2	3	2	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	0	1	Hilsenhoff 1995,82
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	1	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	2	0	Hilsenhoff 1995
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			0	1	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	0	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	0	2	Schmude, Hils. 1986
04050301	TRICHOPTERA	HYDROPTILIDAE	LEUCOTRICHIA	PICTIPES	2.0	0	0	2	Hilsenhoff 1995
04110104	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	SOCIA	0.0	0	0	1	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	0	1	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	0	2	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	13	15	4	Hilsenhoff 1995
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	6	16	5	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	11	29	8	Hilsenhoff 1995
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	71	51	31	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	1	0	Hilsenhoff 1995

08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	1	1	Hilsenhoff 1995
08110700	DIPTERA	SIMULIIDAE	**PUPA**			0	0	4	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	1	1	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		10	15	15	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	0	3	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	0	2	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	0	1	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	0	0	1	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	0	3	0	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	18	20	32	Epler 2001
08301700	DIPTERA	ORTHOCLADIINAE	HYDROBAENUS	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	2	1	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	3	0	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	1	2	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	1	0	1	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	3	26	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	0	1	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	14	6	4	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	0	0	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	1	1	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	5	6	3	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	9	4	5	Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	1	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	3	0	Epler 2001

LITTLE WOLF RIVER

Location- 50 ft downstream of snowmobile bridge

SAMPLENUM- 20051001-69-39

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	0	1	0	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	5	6	16	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	0	4	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	1	0	2	Hilsenhoff 1995,82
02040603	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	FRISONI		0	1	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		8	3	4	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	10	8	0	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	3	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	2	0	10	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	1	1	0	Hilsenhoff 1995,82
02170100	EPHEMEROPTERA	ISONYCHIIDAE	ISONYCHIA	**UNIDENTIFIED**	2.0	2	0	0	Hilsenhoff 1995,82
03060505	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	RUPINSULENSIS	1.0	0	1	0	Needham et al. 2000
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	0	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	0	2	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	2	1	2	Hilsenhoff 1995
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	5	1	1	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	3	15	13	Schmude, Hils. 1986
04040708	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	WALKERI	1.0	1	0	0	Schmude, Hils. 1986
04050301	TRICHOPTERA	HYDROPTILIDAE	LEUCOTRICHIA	PICTIPES	2.0	12	5	3	Hilsenhoff 1995
04070600	TRICHOPTERA	LEPTOCERIDAE	SETODES	**UNIDENTIFIED**	2.0	0	1	0	Hilsenhoff 1995
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	2	0	0	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	6	12	2	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	0	0	Neunzig 1966
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995

07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	0	1	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	3	2	8	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	2	0	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	15	19	23	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	3	7	Hilsenhoff 1995
07040100	COLEOPTERA	PSEPHENIDAE	ECTOPRIA	**UNIDENTIFIED**	5.0	1	0	0	Hilsenhoff 1995
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	2	6	2	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	5	6	6	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	2	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	9	15	8	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	2	1	3	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	0	0	7	Epler 2001
08301406	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	GRACEI GROUP	5.0	0	0	1	Epler 2001
08305500	DIPTERA	ORTHOCLADIINAE	ORTHOCLADIUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	8	4	1	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	2	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	1	2	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	9	9	2	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	1	1	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	1	0	Epler 2001

LITTLE WOLF RIVER

Location- 40 ft upstream Hwy 22 bridge.

SAMPLENUM- 20040519-69-53

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	0	0	1	Hilsenhoff 1995
01070100	PLECOPTERA	PTERONARCYIDAE	PTERONARCYS	**UNIDENTIFIED**	0.0	1	0	0	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	8	10	4	Hilsenhoff 1995,82
02011002	EPHEMEROPTERA	BAETIDAE	ACENTRELLA	TURBIDA	2.0	0	1	0	Hilsenhoff 1995,82

02011301	EPHEMEROPTERA	BAETIDAE	DIPHETOR	HAGENI	5.0	0	0	1	Hilsenhoff 1995,82
02011600	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	**UNIDENTIFIED**		5	1	1	Hilsenhoff 1995,82
02011603	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	CINCTUTUS		3	4	0	Hilsenhoff 1995,82
02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	15	21	47	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	11	47	2	Hilsenhoff 1995,82
02040200	EPHEMEROPTERA	EPHEMERELLIDAE	DANNELLA	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995,82
02040405	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	NEEDHAMI	2.0	4	1	0	Hilsenhoff 1995,82
02040414	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	D. DOROTHEA	1.0	2	2	2	Hilsenhoff 1995,82
02040603	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	FRISONI		0	0	1	Hilsenhoff 1995,82
02060201	EPHEMEROPTERA	HEPTAGENIIDAE	EPEORUS	VITREUS	0.0	0	2	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995,82
03060505	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	RUPINSULENSIS	1.0	1	1	0	Needham et al. 2000
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	1	0	1	Hilsenhoff 1995
04040704	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	MOROSA BIFIDA FORM	6.0	1	0	0	Schmude, Hils. 1986
04040708	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	WALKERI	1.0	0	1	0	Schmude, Hils. 1986
04080000	TRICHOPTERA	LIMNEPHILIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
04110104	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	SOCIA	0.0	0	1	0	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	0	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	0	1	Neunzig 1966
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	0	4	2	Hilsenhoff 1995
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	0	1	4	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	3	13	6	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	3	0	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	2	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08071600	DIPTERA	EMPIDIDAE	**PUPA**			0	1	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		18	14	5	Hilsenhoff 1995
08110244	DIPTERA	SIMULIIDAE	SIMULIUM	FIBRINFLATUM	6.0	1	0	0	Hilsenhoff 1985

08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	2	1	1	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		0	6	11	Epler 2001
08272300	DIPTERA	TANYPODINAE	RHEOPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	2	3	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	1	0	0	Epler 2001
08304300	DIPTERA	ORTHOCLADIINAE	STILOCLADIUS	**UNIDENTIFIED**		1	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	3	3	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	16	11	24	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	3	2	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	0	0	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08311000	DIPTERA	TANYTARSINI	SUBLETTEA	**UNIDENTIFIED**		2	0	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	0	3	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	0	1	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	0	0	1	Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	1	3	2	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	3	7	7	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	44	38	14	Holsinger 1972

LITTLE WOLF RIVER

Location- 40 ft upstream Hwy 22 bridge.

SAMPLENUM- 20051001-69-53

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	2	5	3	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	9	3	6	Hilsenhoff 1995
02010501	EPHEMEROPTERA	BAETIDAE	HETEROCLOEON	CURIOSUM	2.0	0	0	1	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	2	0	1	Hilsenhoff 1995,82
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	0	0	1	Hilsenhoff 1995,82

02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	1	0	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	0	1	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		6	18	5	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	4	6	3	Hilsenhoff 1995,82
02061504	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	M. INTEGRUM	4.0	0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	2	0	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	0	3	0	Hilsenhoff 1995,82
02170100	EPHEMEROPTERA	ISONYCHIIDAE	ISONYCHIA	**UNIDENTIFIED**	2.0	0	1	0	Hilsenhoff 1995,82
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		2	0	3	Hilsenhoff 1985b
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	11	10	11	Hilsenhoff 1995
04040208	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	SCALARIS	2.0	0	0	1	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	6	7	6	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	13	5	6	Schmude, Hils. 1986
04040708	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	WALKERI	1.0	1	0	0	Schmude, Hils. 1986
04050301	TRICHOPTERA	HYDROPTILIDAE	LEUCOTRICHIA	PICTIPES	2.0	22	35	16	Hilsenhoff 1995
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	1	5	0	Hilsenhoff 1995,82
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	0	1	0	Hilsenhoff 1995,82
04110104	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	SOCIA	0.0	0	2	1	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	8	24	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	0	Neunzig 1966
07020101	COLEOPTERA	ELMIDAE	ANCYRONYX	VARIEGATA	6.0	0	0	1	Hilsenhoff 1992
07020202	COLEOPTERA	ELMIDAE	DUBIRAPHIA	MINIMA	5.0	0	0	1	Hils., Schmude 1992
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	0	1	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	22	13	4	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	4	1	0	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	14	26	25	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	6	11	17	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	2	4	0	Hils., Schmude 1992

07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	0	6	4	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	3	3	8	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	5	7	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08300401	DIPTERA	ORTHOCLADIINAE	BRILLIA	FLAVIFRONS	5.0	0	1	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	1	1	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	0	2	0	Epler 2001
08300920	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	ANNULATOR COMPLEX	7.0	2	0	0	Epler 2001
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	0	1	1	Epler 2001
08304800	DIPTERA	ORTHOCLADIINAE	TVETENIA	**UNIDENTIFIED**	5.0	0	1	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	2	3	0	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	1	0	0	Epler 2001
08305402	DIPTERA	ORTHOCLADIINAE	N.	BRANCHICOLUS	3.0	0	2	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	0	4	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	0	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08321303	DIPTERA	CHIRONOMINI	DICROTENDIPES	FUMIDUS	8.0	0	1	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	3	4	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		2	1	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	4	6	Holsinger 1972

LITTLE WOLF RIVER

Location- 100 ft upstream of Hwy 54 bridge.

SAMPLENUM- 20040504-69-56

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	0	0	1	Hilsenhoff 1995
01050500	PLECOPTERA	PERLIDAE	PERLESTA	**UNIDENTIFIED**		4	0	3	Hilsenhoff 1995
01060400	PLECOPTERA	PERLODIDAE	ISOPERLA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995

02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	0	0	1	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	2	5	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	1	0	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	5	1	5	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	1	0	0	Hilsenhoff 1995,82
02040603	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	FRISONI		1	2	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		3	0	1	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	0	4	Hilsenhoff 1995,82
02090100	EPHEMEROPTERA	POTAMANTHIDAE	ANTHOPOTAMUS	**UNIDENTIFIED**	4.0	11	2	0	Hilsenhoff 1995,82
04020200	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**UNIDENTIFIED**	0.0	0	1	0	Hilsenhoff 1995
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	2	4	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	5	46	35	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	2	1	0	Hilsenhoff 1995
04040214	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	PLACODA	3.0	0	1	0	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	1	0	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	2	0	3	Schmude, Hils. 1986
04040716	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**PUPA**		0	0	1	Schmude, Hils. 1986
04050301	TRICHOPTERA	HYDROPTILIDAE	LEUCOTRICHIA	PICTIPES	2.0	0	1	0	Hilsenhoff 1995
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	1	0	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	0	1	1	Hilsenhoff 1995
04070600	TRICHOPTERA	LEPTOCERIDAE	SETODES	**UNIDENTIFIED**	2.0	0	5	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	2	1	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	0	1	0	Hilsenhoff 1995
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	12	6	16	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	5	2	1	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	3	0	1	Hilsenhoff 1995
07090200	COLEOPTERA	HYDROPHILIDAE	BEROSUS	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995

08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	7	7	4	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		7	4	6	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	1	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08280301	DIPTERA	DIAMESINAE	POTTHASTIA	GAEDII GROUP	2.0	1	3	4	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	1	1	0	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	0	2	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	7	3	4	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	23	18	20	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	2	0	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	5	7	2	Epler 2001
08311000	DIPTERA	TANYTARSINI	SUBLETTEA	**UNIDENTIFIED**		1	2	0	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			1	1	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	2	1	4	Epler 2001
08321300	DIPTERA	CHIRONOMINI	DICROTENDIPES	**UNIDENTIFIED**	8.0	7	4	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	7	17	4	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	4	1	0	Epler 2001
08323000	DIPTERA	CHIRONOMINI	PARACLADOPELMA	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	0	1	0	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	1	0	2	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	1	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	13	5	4	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	7	2	3	Holsinger 1972
09020101	AMPHIPODA	HYALELLIDAE	HYALLELA	AZTECA	8.0	1	0	0	Holsinger 1972
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			0	0	7	Pennak 1978

LITTLE WOLF RIVER

Location- 100 ft upstream of Hwy 54 bridge.

SAMPLENUM- 20051002-69-56

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	1	1	1	Hilsenhoff 1995
01050801	PLECOPTERA	PERLIDAE	AGNETINA	CAPITATA	2.0	0	0	1	Hilsenhoff 1981
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	0	0	3	Hilsenhoff 1995
02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	1	0	0	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	1	1	5	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	0	1	4	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	3	0	1	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	2	7	0	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		3	5	3	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		11	17	12	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	10	16	15	Hilsenhoff 1995,82
02070100	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995,82
02090101	EPHEMEROPTERA	POTAMANTHIDAE	ANTHOPOTAMUS	MYOPS	4.0	3	14	1	Hilsenhoff 1995,82
02170100	EPHEMEROPTERA	ISONYCHIIDAE	ISONYCHIA	**UNIDENTIFIED**	2.0	4	5	1	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	0	1	0	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	2	0	0	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	3	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	2	18	5	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	31	26	7	Hilsenhoff 1995
04040208	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	SCALARIS	2.0	3	0	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	4	2	4	Schmude, Hils. 1986

04050301	TRICHOPTERA	HYDROPTILIDAE	LEUCOTRICHIA	PICTIPES	2.0	1	2	0	Hilsenhoff 1995
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	0	0	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	0	0	1	Hilsenhoff 1995
04070600	TRICHOPTERA	LEPTOCERIDAE	SETODES	**UNIDENTIFIED**	2.0	5	3	1	Hilsenhoff 1995
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	0	0	1	Hilsenhoff 1995,82
04130400	TRICHOPTERA	POLYCENTROPODIDAE	POLYCENTROPUS	**UNIDENTIFIED**	6.0	0	2	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	4	3	0	Hilsenhoff 1995
06010400	LEPIDOPTERA	PYRALIDAE	PETROPHILA	**UNIDENTIFIED**	5.0	0	2	2	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	1	5	Hilsenhoff 1995
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	13	9	23	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	9	14	11	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	3	0	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	0	1	0	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	1	1	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	2	0	1	Hilsenhoff 1995
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			0	0	1	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	2	0	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		1	3	3	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	1	1	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	0	0	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	1	4	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	2	9	6	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	0	1	0	Epler 2001
08323300	DIPTERA	CHIRONOMINI	PHAENOPSECTRA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	0	2	0	Holsinger 1972
09020101	AMPHIPODA	HYALELLIDAE	HYALLELA	AZTECA	8.0	0	1	0	Holsinger 1972
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			1	0	0	Pennak 1978

LITTLE WOLF RIVER

Location- 50 ft downstream of River Rd culvert.

SAMPLENUM- 20040512-37-58

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02010000	EPHEMEROPTERA	BAETIDAE	**UNIDENTIFIED**			0	0	1	Hilsenhoff 1995
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	1	0	1	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	1	0	Hilsenhoff 1995,82
03010401	ODONATA	AESHNIDAE	BOYERIA	VINOSA	2.0	0	1	0	Needham et al. 2000
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	1	6	1	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	0	0	Schmude, Hils. 1986
04190106	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**PUPA**		1	0	0	Merritt, Cummins 84
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	64	33	24	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	16	5	16	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	2	2	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	0	3	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	3	3	2	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	2	0	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	1	0	0	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	18	9	14	Hilsenhoff 1985
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	0	1	0	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		5	1	0	Hilsenhoff 1985

08140000	DIPTERA	TIPULIDAE	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	0	0 Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		2	1	14 Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	0	0	1 Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	8	16	8 Epler 2001
08300400	DIPTERA	ORTHOCLADIINAE	BRILLIA	**UNIDENTIFIED**	5.0	1	0	0 Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	1	2 Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	2	0 Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		0	1	0 Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	3	7	10 Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	2	4 Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	2 Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	0 Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	3	16 Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	1	0 Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	0	3	0 Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	9	6 Epler 2001
08323200	DIPTERA	CHIRONOMINI	PARATENDIPES	**UNIDENTIFIED**	8.0	0	1	0 Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	3	9	9 Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	1	2 Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	1	0 Epler 2001
15030101	PELECYPODA	DREISSENIDAE	DREISSENIA	POLYMORPHA		0	1	0 Pennak 1978

LITTLE WOLF RIVER

Location- 50 ft downstream of River Rd culvert.

SAMPLENUM- 20050930-37-58

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	9	1	2	Hitchcock 1974
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	1	0	0	Hilsenhoff 1995,82

01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	5	0	2	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	3	0	2	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	2	4	0	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	1	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	5	3	3	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	7	8	2	Hilsenhoff 1995,82
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	1	0	1	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	1	0	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	1	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	1	0	Hilsenhoff 1995
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	48	73	4	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	2	9	1	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	2	4	1	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	0	1	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	2	1	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	7	1	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	24	3	19	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	18	8	44	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	20	4	53	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	2	3	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	1	0	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	1	0	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	0	9	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	2	0	0	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	0	0	3	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	0	1	Epler 2001

08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCLADIUS	**UNIDENTIFIED**		1	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	1	0	Epler 2001
08305402	DIPTERA	ORTHOCLADIINAE	N.	BRANCHICOLUS	3.0	0	1	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	0	1	Epler 2001

LITTLE WOLF RIVER

Location- 380 ft downstream of Ostrander Rd
 SAMPLENUM- 20040510-69-63

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050000	PLECOPTERA	PERLIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
01050500	PLECOPTERA	PERLIDAE	PERLESTA	**UNIDENTIFIED**		8	0	12	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	0	1	0	Hilsenhoff 1995,82
02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	22	1	8	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	1	2	1	Hilsenhoff 1995,82
02040405	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	NEEDHAMI	2.0	1	8	7	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	1	0	0	Hilsenhoff 1995,82
02040414	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	D. DOROTHEA	1.0	0	0	1	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	1	0	4	Hilsenhoff 1995,82
02060602	EPHEMEROPTERA	HEPTAGENIIDAE	STENONEMA	FEMORATUM	5.0	1	1	1	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	0	6	Hilsenhoff 1995,82
02061501	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	EXIGUUM	5.0	0	6	0	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	0	2	4	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	0	1	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	11	3	0	Hilsenhoff 1995,82
02090100	EPHEMEROPTERA	POTAMANTHIDAE	ANTHOPOTAMUS	**UNIDENTIFIED**	4.0	0	0	2	Hilsenhoff 1995,82

02170100	EPHEMEROPTERA	ISONYCHIIDAE	ISONYCHIA	**UNIDENTIFIED**	2.0	1	1	2	Hilsenhoff 1995,82
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			0	0	1	Hilsenhoff 1995
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	1	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	3	1	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	4	2	Hilsenhoff 1995
04040202	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	CUANIS	6.0	0	1	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	2	11	8	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	3	1	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	1	1	0	Hilsenhoff 1995
04110102	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	FERIA	1.0	0	0	1	Hilsenhoff 1995,82
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	1	0	0	Hilsenhoff 1995,82
04110104	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	SOCIA	0.0	1	0	0	Hilsenhoff 1995,82
04130200	TRICHOPTERA	POLYCENTROPODIDAE	NEURECLIPSIS	**UNIDENTIFIED**	7.0	0	0	1	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	1	0	1	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	1	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	10	2	8	Hilsenhoff 1995
07020604	COLEOPTERA	ELMIDAE	STENELMIS	SANDERSONI	4.0	1	0	1	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	2	1	3	Hilsenhoff 1995
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	0	1	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		11	2	4	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	2	3	1	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	0	2	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		2	10	6	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	0	3	Epler 2001
08273705	DIPTERA	TANYPODINAE	A. (ABLABESMYIA)	MALLOCHI	8.0	0	1	0	Epler 2001
08280302	DIPTERA	DIAMESINAE	POTTHASTIA	LONGIMANA GROUP	2.0	0	0	1	Epler 2001
08300500	DIPTERA	ORTHOCLADIINAE	CARDIOCLADIUS	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	5	3	2	Epler 2001

08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	4	6	10	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	3	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	4	1	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	2	13	6	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	6	3	4	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	1	6	0	Epler 2001
08321300	DIPTERA	CHIRONOMINI	DICROTENDIPES	**UNIDENTIFIED**	8.0	0	4	2	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	6	1	3	Epler 2001
08323300	DIPTERA	CHIRONOMINI	PHAENOPSECTRA	**UNIDENTIFIED**	7.0	1	1	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	6	1	0	Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	1	1	1	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	0	2	0	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	2	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	13	6	18	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	8	19	2	Holsinger 1972
10010100	ISOPODA	ASELLIDAE	CAECIDOTEA	**UNIDENTIFIED**		1	0	0	Williams 1972
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		21	15	7	Pennak 1978

LITTLE WOLF RIVER

Location- 380 ft downstream of Ostrander Rd

SAMPLENUM- 20051002-69-63

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	0	1	0	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	1	0	0	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	1	0	0	Hilsenhoff 1995,82
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	0	1	0	Hilsenhoff 1995,82
02010501	EPHEMEROPTERA	BAETIDAE	HETEROCLOEON	CURIOSUM	2.0	1	0	0	Hilsenhoff 1995,82v

02011600	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995,82
02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	0	1	0	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	5	0	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	1	0	3	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	13	3	0	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	0	1	16	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		45	7	15	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	17	5	3	Hilsenhoff 1995,82
02061506	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MODESTUM	1.0	2	0	0	Hilsenhoff 1995,82v
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	1	1	11	Hilsenhoff 1995,82
02090101	EPHEMEROPTERA	POTAMANTHIDAE	ANTHOPOTAMUS	MYOPS	4.0	0	1	2	Hilsenhoff 1995,82
02170100	EPHEMEROPTERA	ISONYCHIIDAE	ISONYCHIA	**UNIDENTIFIED**	2.0	28	8	0	Hilsenhoff 1995,82
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1985b
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	13	26	3	Hilsenhoff 1995
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			2	2	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	40	28	15	Hilsenhoff 1995
04040202	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	CUANIS	6.0	3	1	2	Schmude, Hils. 1986
04040208	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	SCALARIS	2.0	7	0	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	28	9	1	Schmude, Hils. 1986
04050301	TRICHOPTERA	HYDROPTILIDAE	LEUCOTRICHIA	PICTIPES	2.0	27	6	7	Hilsenhoff 1995
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	3	1	1	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	0	0	1	Hilsenhoff 1995
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	11	8	0	Hilsenhoff 1995,82
04110104	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	SOCIA	0.0	14	3	1	Hilsenhoff 1995,82
04130200	TRICHOPTERA	POLYCENTROPODIDAE	NEURECLIPSIS	**UNIDENTIFIED**	7.0	2	0	0	Hilsenhoff 1995
04130400	TRICHOPTERA	POLYCENTROPODIDAE	POLYCENTROPUS	**UNIDENTIFIED**	6.0	3	0	0	Hilsenhoff 1995
04140101	TRICHOPTERA	PSYCHOMYIIDAE	LYPE	DIVERSA	2.0	0	1	3	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	7	0	11	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	0	0	Neunzig 1966

07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	0	3	Hilsenhoff 1995
07020202	COLEOPTERA	ELMIDAE	DUBIRAPHIA	MINIMA	5.0	1	0	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	0	0	Hilsenhoff 1995
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	14	3	4	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	24	4	23	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	4	0	2	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	0	0	4	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	2	0	2	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	1	1	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		1	0	3	Epler 2001
08304800	DIPTERA	ORTHOCLADIINAE	TVETENIA	**UNIDENTIFIED**	5.0	0	1	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	3	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	6	4	5	Epler 2001
08321300	DIPTERA	CHIRONOMINI	DICROTENDIPES	**UNIDENTIFIED**	8.0	0	0	5	Epler 2001
08321309	DIPTERA	CHIRONOMINI	DICROTENDIPES	NEOMODESTUS	8.0	0	0	8	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	0	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	3	1	1	Epler 2001
08326500	DIPTERA	CHIRONOMINI	S.	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		3	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	0	3	Holsinger 1972
09020101	AMPHIPODA	HYALELLIDAE	HYALLELA	AZTECA	8.0	1	0	28	Holsinger 1972
20010101	NEUROPTERA	SISYRIDAE	CLIMACIA	AREOLARIS		1	0	0	Hilsenhoff 1995

N. BRANCH LITTLE WOLF RIVER

Location- 70 ft downstream of Cnty E bridge.

SAMPLENUM- 20040426-69-19

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	3	1	2	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	9	6	5	Hilsenhoff 1995,82

02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	7	17	5	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	3	0	3	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	4	6	3	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	2	2	Hilsenhoff 1995,82
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	2	3	1	Hilsenhoff 1985b
04020100	TRICHOPTERA	GLOSSOSOMATIDAE	AGAPETUS	**UNIDENTIFIED**	0.0	0	2	0	Hilsenhoff 1995
04020200	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**UNIDENTIFIED**	0.0	1	0	0	Hilsenhoff 1995
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	6	14	10	Bright 2003
04020202	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	NIGRIOR	0.0	0	0	3	Bright 2003
04020203	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**PUPA**		3	3	0	Merritt, Cummins 96
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	7	5	7	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	3	3	0	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	0	1	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	7	6	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	1	2	Schmude, Hils. 1986
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	1	0	3	Hilsenhoff 1995,82
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	0	3	0	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	3	0	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	8	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	7	Neunzig 1966
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	2	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	6	12	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	3	10	7	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	5	13	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	5	2	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	4	2	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	1	0	0	Hilsenhoff 1995

08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	0	0	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	5	0	0	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	6	6	36	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		19	26	28	Hilsenhoff 1985
08110304	DIPTERA	SIMULIIDAE	PROSIMULIUM	MIXTUM	3.0	2	0	5	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	16	9	3	Hilsenhoff 1995
08180100	DIPTERA	CULICIDAE	AEDES	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		6	7	10	Epler 2001
08272300	DIPTERA	TANYPODINAE	RHEOPELOPIA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	1	0	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	1	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	2	0	4	Epler 2001
08304012	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	UNIDENTATUS	6.0	1	0	2	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	6	3	17	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	1	0	1	Epler 2001
08305300	DIPTERA	ORTHOCLADIINAE	N. (NANOCLADIUS)	**UNIDENTIFIED**	3.0	0	1	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	2	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	8	3	7	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	0	1	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	1	0	0	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	1	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	4	0	0	Epler 2001

09010201 AMPHIPODA GAMMARIDAE GAMMARUS PSEUDOLIMNAEUS 4.0 0 0 6 Holsinger 1972

N. BRANCH LITTLE WOLF RIVER

Location- 70 ft downstream of Cnty E bridge.

SAMPLENUM- 20051002-69-19

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	4	2	0	Hitchcock 1974
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	1	0	2	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	3	1	3	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	4	5	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	4	21	3	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	4	1	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	0	4	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	0	2	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	9	20	4	Hilsenhoff 1995,82
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	2	0	2	Hilsenhoff 1985b
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		8	9	5	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	1	2	3	Bright 2003
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	10	9	4	Hilsenhoff 1995
04040200	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	4	2	12	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		4	0	0	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	8	10	16	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	8	6	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	0	1	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	6	19	7	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	2	3	2	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	9	23	5	Neunzig 1966

07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	17	4	26	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	14	12	17	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	0	1	1	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	5	2	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	1	0	Hilsenhoff 1995
08110224	DIPTERA	SIMULIIDAE	SIMULIUM	RUGGLESII	5.0	1	0	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	4	2	1	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	1	0	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	2	3	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	7	4	5	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	0	1	0	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	1	2	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	1	1	Epler 2001
08322502	DIPTERA	CHIRONOMINI	MICROTENDIPES	RYDALENSIS GROUP	6.0	0	0	1	Epler 2001
08326012	DIPTERA	CHIRONOMINI	P. (POLYPEDILUM)	LAETUM	4.0	0	0	2	Epler 2001
08326500	DIPTERA	CHIRONOMINI	S.	**UNIDENTIFIED**	5.0	0	1	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	0	0	Holsinger 1972

N. FORK BLAKE CREEK

Location- 20 ft downstream of Cnty E culvert

SAMPLENUM- 20040505-69-40

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGHI	5.0	0	0	1	Hilsenhoff 1995,82
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	0	2	0	Hilsenhoff 1995

04020202	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	NIGRIOR	0.0	0	0	1	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	22	18	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	0	1	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	0	2	Schmude, Hils. 1986
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	1	2	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	5	2	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	0	1	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	2	20	4	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	6	9	13	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	0	0	4	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	2	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	0	1	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	3	1	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	2	4	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	1	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	1	2	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	1	0	1	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	1	0	1	Hilsenhoff 1995
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			0	0	2	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	2	0	3	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	2	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	3	3	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	0	3	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	0	4	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	1	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	0	4	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	4	5	Epler 2001

09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	141	64	39	Holsinger 1972
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N. FORK BLAKE CREEK

Location- 20 ft downstream of Cnty E culvert

SAMPLENUM- 20051001-69-40

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	8	8	13	Hitchcock 1974
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	5	4	4	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	1	0	5	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	0	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	3	1	3	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	1	3	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	3	0	1	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	0	7	5	Hilsenhoff 1995,82
03010401	ODONATA	AESHNIDAE	BOYERIA	VINOSA	2.0	0	1	0	Needham et al. 2000
03020201	ODONATA	CALOPTERYGIDAE	HETAERINA	AMERICANA	6.0	0	1	0	Needham et al. 2000
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	0	2	1	Needham et al. 2000
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	0	0	3	Hilsenhoff 1985b
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	0	2	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	12	14	7	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	0	0	Schmude, Hils. 1986
04080501	TRICHOPTERA	LIMNAPHILIDAE	HYDATOPHYLAX	ARGUS	2.0	1	2	1	Hilsenhoff 1995
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	1	0	2	Hilsenhoff 1995,82
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	0	0	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	2	0	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	18	16	26	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	7	4	13	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	8	8	4	Hils., Schmude 1992

08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	0	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	1	5	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	1	0	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	0	8	4	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		5	2	3	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	3	4	0	Epler 2001
08271400	DIPTERA	TANYPODINAE	LARSIA	**UNIDENTIFIED**	6.0	1	1	0	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	1	1	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		0	0	1	Epler 2001
08300401	DIPTERA	ORTHOCLADIINAE	BRILLIA	FLAVIFRONS	5.0	1	1	0	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	1	0	1	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	3	1	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	3	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	1	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	4	2	0	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	1	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	23	19	13	Holsinger 1972

N. FORK WHITCOMB CREEK

Location- 10 ft downstream of Cnty G bridge

SAMPLENUM- 20040503-69-47

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01030100	PLECOPTERA	LEUCTRIDAE	LEUCTRA	**UNIDENTIFIED**	0.0	1	0	0	Hitchcock 1974
01040100	PLECOPTERA	NEMOURIDAE	AMPHINEMURA	**UNIDENTIFIED**		1	1	4	Hilsenhoff 1995

01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	0	2	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	6	0	2	Hilsenhoff 1995,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	1	1	8	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	3	1	0	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	0	1	Hilsenhoff 1995,82
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	1	2	5	Needham et al. 2000
04010300	TRICHOPTERA	BRACHYCENTRIDAE	**PUPA**			0	0	5	Merritt, Cummins 84
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	13	8	2	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	2	1	Schmude, Hils. 1986
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	2	1	1	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	0	2	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	10	4	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	2	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	35	19	45	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	52	69	31	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	11	0	0	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	3	5	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	1	2	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	7	2	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	0	2	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	0	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	2	1	2	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		3	2	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	2	1	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	2	6	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	0	1	Epler 2001
08306900	DIPTERA	ORTHOCLADIINAE	HELENIELLA	**UNIDENTIFIED**		1	0	0	Epler 2001

08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	19	1	6	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	2	1	12	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	0	5	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	8	15	29	Holsinger 1972

N. FORK WHITCOMB CREEK

Location- 10 ft downstream of Cnty G bridge

SAMPLENUM- 20051001-69-47

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	6	4	1	Hitchcock 1974
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	1	1	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	0	2	0	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	7	9	3	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	0	3	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	16	24	20	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	2	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	3	1	Hilsenhoff 1995,82
02070102	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	NEBULOSA	4.0	1	4	1	Hilsenhoff 1995,82
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	2	0	3	Needham et al. 2000
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	0	4	23	Hilsenhoff 1985b
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	0	3	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	2	13	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	6	1	Schmude, Hils. 1986
04040708	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	WALKERI	1.0	1	0	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	6	7	0	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	2	2	2	Hilsenhoff 1995
04130400	TRICHOPTERA	POLYCENTROPODIDAE	POLYCENTROPUS	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	1	0	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	1	0	0	Hilsenhoff 1995

04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	3	2	0	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	14	12	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	0	16	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	1	0	1	Hilsenhoff 1995
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	1	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	2	1	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	2	3	4	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	1	1	0	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08280305	DIPTERA	DIAMESINAE	POTTHASTIA	CF. GAEDII	2.0	1	0	0	Epler 2001
08300600	DIPTERA	ORTHOCLADIINAE	CHAETOCADIUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCADIUS	**UNIDENTIFIED**		0	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	2	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	69	27	58	Holsinger 1972

NICHOL CREEK

Location- 300 ft west of county park south parking lot.
SAMPLENUM- 20040505-69-13

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	1	0	1	Hilsenhoff 1995,82
02040400	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995,82
02040403	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	EXCRUCIANS	1.0	12	12	4	Hilsenhoff 1995,82

02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	1	3	Hilsenhoff 1995,82
02040405	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	NEEDHAMI	2.0	1	1	0	Hilsenhoff 1995,82
02050100	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	**UNIDENTIFIED**		4	0	1	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	5	1	1	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	6	0	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	3	4	5	Hilsenhoff 1995,82
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	0	1	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	1	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	1	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	0	1	Hilsenhoff 1995
04080100	TRICHOPTERA	LIMNEPHILIDAE	ANABOLIA	**UNIDENTIFIED**	5.0	0	0	1	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	0	3	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	1	1	5	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	0	1	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	3	10	8	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	0	0	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	0	0	1	Hilsenhoff 1995
07130000	COLEOPTERA	STAPHYLINIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	2	3	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	5	2	5	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		15	9	11	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	1	3	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	1	0	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	2	1	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	1	3	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	1	2	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	0	0	1	Epler 2001

08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	1	2	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	10	8	8	Epler 2001
08310000	DIPTERA	TANYTARSINI		**UNIDENTIFIED**		0	12	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	49	25	53	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	2	6	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	7	0	4	Epler 2001
08311000	DIPTERA	TANYTARSINI	SUBLETTEA	**UNIDENTIFIED**		4	7	9	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	4	7	5	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	21	18	11	Epler 2001
08323300	DIPTERA	CHIRONOMINI	PHAENOPSECTRA	**UNIDENTIFIED**	7.0	1	1	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	1	5	2	Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	1	0	1	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	1	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	8	7	5	Epler 2001
09000000	AMPHIPODA	**UNIDENTIFIED**				0	1	1	Pennak 1978

PETERSON CREEK

Location- 0.5 mile south of Cnty Q bridge.

SAMPLENUM- 20040505-69-11

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050500	PLECOPTERA	PERLIDAE	PERLESTA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	10	5	0	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	3	0	0	Hilsenhoff 1995,82
02040414	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	D. DOROTHEA	1.0	0	0	4	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995,82
04000200	TRICHOPTERA	**UNIDENTIFIED**	**PUPA**			0	3	0	Hilsenhoff 1995
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	2	4	8	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	0	0	1	Hilsenhoff 1985b

04010300	TRICHOPTERA	BRACHYCENTRIDAE	**PUPA**		0	2	9	Merritt, Cummins 84
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	22	19	78 Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	4	2	0 Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	3	1	1 Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	2	1	0 Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	0	1 Hilsenhoff 1995
04040701	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	ALHEDRA	3.0	1	3	0 Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	3	0	3 Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	6	0 Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	5	21	6 Schmude, Hils. 1986
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	1	0 Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	1	0 Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	0	1 Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	2	4	4 Hilsenhoff 1995
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	2	2 Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	0 Hilsenhoff 1995
08110215	DIPTERA	SIMULIIDAE	SIMULIUM	VENUSTUM	5.0	0	0	1 Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	7	10	9 Hilsenhoff 1995
08141300	DIPTERA	TIPULIDAE	**PUPA**		0	0	1	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**	2	0	0	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**		1	0	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	4	3	7 Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	0 Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	1	2	1 Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	9	20	5 Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	1	1	0 Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	2	1 Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	4	1	0 Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	1	0 Epler 2001

09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	63	31	9	Holsinger 1972
10010000	ISOPODA	ASELLIDAE	**UNIDENTIFIED**			0	0	2	Williams 1972
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		0	1	0	Pennak 1978

PETERSON CREEK

Location- 0.5 mile south of Cnty Q bridge.

SAMPLENUM- 20051003-69-11

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	0	0	1	Hitchcock 1974
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	1	2	2	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	1	0	3	Hilsenhoff 1995,82
02011002	EPHEMEROPTERA	BAETIDAE	ACENTRELLA	TURBIDA	2.0	1	0	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	2	1	2	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	0	0	1	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	3	8	6	Hilsenhoff 1985b
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	4	5	11	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	2	2	3	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	1	9	5	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	7	48	19	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	4	9	12	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	2	1	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	4	11	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	2	2	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	2	0	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	1	0	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	9	13	11	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	5	5	8	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	4	7	9	Hils., Schmude 1992

08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	0	2	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	3	0	2	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	1	3	Hilsenhoff 1995
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	3	1	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	0	1	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		2	3	2	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	79	28	24	Holsinger 1972

PETERSON CREEK

Location- 80 ft. downstream of Peterson Road

SAMPLENUM- 20040426-69-10

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	1	0	0	Hilsenhoff 1995
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	2	0	1	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	1	0	0	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	0	1	Hilsenhoff 1995,82
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	49	105	163	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	12	9	7	Hilsenhoff 1995
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			0	2	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	3	0	1	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	3	2	6	Schmude, Hils. 1986
04040701	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	ALHEDRA	3.0	3	0	1	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	1	1	Schmude, Hils. 1986

04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	6	0	4	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	1	2	Schmude, Hils. 1986
04040716	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**PUPA**		1	0	0	Schmude, Hils. 1986
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
04110301	TRICHOPTERA	PHILOPOTAMIDAE	WORMALDIA	MOESTA	0.0	0	0	2	Hilsenhoff 1995,82
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	16	29	13	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	28	8	7	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	4	0	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	5	5	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	1	0	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	1	0	0	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	0	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	0	1	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	0	0	1	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	7	13	22	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	1	4	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	2	0	0	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	0	0	1	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	2	1	1	Epler 2001
08301406	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	GRACEI GROUP	5.0	0	1	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	2	0	1	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	2	0	0	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	1	1	0	Epler 2001

08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	1	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	20	22	7	Holsinger 1972
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		2	0	0	Pennak 1978

PETERSON CREEK

Location- 80 ft. downstream of Peterson Road

SAMPLENUM- 20051002-69-10

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	0	1	1	Hitchcock 1974
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	4	4	0	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	2	0	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	9	26	23	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	3	0	0	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	1	6	0	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	3	6	0	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	1	0	0	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		0	3	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		16	4	4	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	2	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	2	5	4	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	3	1	0	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	11	20	14	Hilsenhoff 1985b
04020202	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	NIGRIOR	0.0	1	0	0	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	1	4	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	7	8	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	2	3	5	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	2	2	0	Schmude, Hils. 1986

04040701	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	ALHEDRA	3.0	0	8	0	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	1	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	18	9	8	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	15	7	0	Schmude, Hils. 1986
04050301	TRICHOPTERA	HYDROPTILIDAE	LEUCOTRICHIA	PICTIPES	2.0	0	0	1	Hilsenhoff 1995
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	1	0	Hilsenhoff 1995
04080501	TRICHOPTERA	LIMNEPHILIDAE	HYDATOPHYLAX	ARGUS	2.0	0	1	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	3	2	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	0	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	22	18	7	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	31	41	15	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	7	5	4	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	3	5	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	4	1	0	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	4	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	3	2	1	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		2	1	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	0	1	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	8	13	9	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	1	0	Hilsenhoff 1995
08141300	DIPTERA	TIPULIDAE	**PUPA**			0	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		2	3	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	3	4	2	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	0	0	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	10	0	0	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	1	0	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	2	1	Epler 2001

08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	0	3	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	3	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	7	10	16	Holsinger 1972

S. BRANCH LITTLE WOLF RIVER

Location- 100 ft. downstream Cnty G bridge.

SAMPLENUM- 20040427-69-23

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	0	1	0	Hilsenhoff 1995,82
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	1	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	4	11	1	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	1	1	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		1	0	1	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	18	43	17	Schmude, Hils. 1986
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	0	2	Hilsenhoff 1995
07020202	COLEOPTERA	ELMIDAE	DUBIRAPHIA	MINIMA	5.0	0	1	0	Hils., Schmude 1992
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	1	0	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	7	1	5	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	1	0	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	1	5	3	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	11	18	25	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	1	0	Hils., Schmude 1992
08030600	DIPTERA	CERATOPOGONIDAE	PROBEZZIA	**UNIDENTIFIED**	6.0	0	0	2	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	9	3	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	1	0	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	2	3	0	Hilsenhoff 1995

08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		2	6	2	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	2	0	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	4	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	1	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	2	1	0	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	1	1	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	6	2	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	2	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	67	59	89	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	2	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	4	24	29	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08321303	DIPTERA	CHIRONOMINI	DICROTENDIPES	FUMIDUS	8.0	0	3	0	Epler 2001
08321900	DIPTERA	CHIRONOMINI	HARNISCHIA	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	20	15	14	Epler 2001
08323500	DIPTERA	CHIRONOMINI	PSEUDOCHIRONOMUS	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	4	6	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	2	5	1	Holsinger 1972
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		2	1	1	Pennak 1978

S. BRANCH LITTLE WOLF RIVER

Location- 100 ft. downstream Cnty G bridge.

SAMPLENUM- 20051002-69-23

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	1	0	1	Hilsenhoff 1995,82
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	0	0	1	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	9	7	2	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		4	0	0	Hilsenhoff 1995,82

02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	6	5	6	Hilsenhoff 1995,82
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	2	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	25	27	6	Hilsenhoff 1995
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	5	2	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	46	28	48	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	3	1	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	10	5	12	Schmude, Hils. 1986
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	7	5	7	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	1	0	1	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	6	1	2	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	5	3	8	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	0	0	1	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	8	3	6	Hilsenhoff 1995
07040100	COLEOPTERA	PSEPHENIDAE	ECTOPRIA	**UNIDENTIFIED**	5.0	1	2	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	4	Hilsenhoff 1995
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	0	1	0	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	6	3	3	Hilsenhoff 1995
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	3	0	0	Epler 2001
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	0	0	1	Epler 2001
08304800	DIPTERA	ORTHOCLADIINAE	TVETENIA	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	3	8	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	2	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	4	9	12	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	0	1	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		2	0	2	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	0	0	1	Holsinger 1972

S. BRANCH LITTLE WOLF RIVER

Location- 100 ft. downstream of Cnty E bridg

SAMPLENUM- 20040426-69-14

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040300	PLECOPTERA	NEMOURIDAE	PROSTOIA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
02040400	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995,82
02040403	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	EXCRUCIANS	1.0	13	10	0	Hilsenhoff 1995,82
02040414	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	D. DOROTHEA	1.0	19	7	13	Hilsenhoff 1995,82
03060500	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	**UNIDENTIFIED**	1.0	1	0	0	Hilsenhoff 1995
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	5	4	3	Hilsenhoff 1985b
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	0	1	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	1	0	Hilsenhoff 1995
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	0	3	Schmude, Hils. 1986
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	1	0	1	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	1	1	1	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	0	4	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	1	4	3	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	2	8	6	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	0	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	2	1	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	2	0	2	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		3	3	3	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	2	0	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	0	0	1	Epler 2001
08280301	DIPTERA	DIAMESINAE	POTTHASTIA	GAEDII GROUP	2.0	1	1	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08301400	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	**UNIDENTIFIED**	8.0	0	1	1	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	0	0	3	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	0	1	Epler 2001

08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	3	1	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	0	2	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	74	71	114	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08311000	DIPTERA	TANYTARSINI	SUBLETTEA	**UNIDENTIFIED**		0	1	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	9	5	4	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	11	39	11	Epler 2001
08323000	DIPTERA	CHIRONOMINI	PARACLADOPELMA	**UNIDENTIFIED**	7.0	4	0	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	0	1	4	Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	1	5	0	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	0	3	5	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	1	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	0	4	Epler 2001
08330000	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	42	15	9	Holsinger 1972
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		4	15	3	Pennak 1978

S. BRANCH LITTLE WOLF RIVER

Location- 100 ft. downstream of Cnty E bridg

SAMPLENUM- 20051002-69-14

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	2	3	2	Hilsenhoff 1995
01070100	PLECOPTERA	PTERONARCYIDAE	PTERONARCYS	**UNIDENTIFIED**	0.0	1	1	1	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	6	3	0	Hilsenhoff 1995
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	0	0	1	Hilsenhoff 1995,82
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	0	0	1	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	0	11	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	1	1	21	Hilsenhoff 1995,82
03060505	ODONATA	GOMPHIDAE	OPHIOGOMPHUS	RUPINSULENSIS	1.0	0	0	1	Needham et al. 2000

04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	1	2	0	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	15	27	4	Hilsenhoff 1985b
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	0	6	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	3	1	13	Hilsenhoff 1995
04040208	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	SCALARIS	2.0	1	0	0	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	1	2	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	3	5	18	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	3	15	4	Schmude, Hils. 1986
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	0	0	1	Hilsenhoff 1995,82
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	1	0	0	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	2	1	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	0	1	Neunzig 1966
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	0	1	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	14	5	40	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	0	5	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	35	43	215	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	12	6	9	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	5	3	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	1	1	18	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	4	19	10	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	3	15	6	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	0	2	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	6	3	13	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	3	1	Epler 2001

08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	3	1	22	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	2	1	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	12	2	15	Holsinger 1972

S. BRANCH LITTLE WOLF RIVER

Location- 220 ft downstream of Weinmann Rd

SAMPLENUM- 20040505-69-24

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050801	PLECOPTERA	PERLIDAE	AGNETINA	CAPITATA	2.0	0	2	0	Hilsenhoff 1981
02010000	EPHEMEROPTERA	BAETIDAE	**UNIDENTIFIED**			2	0	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	16	10	10	Hilsenhoff 1995,82
02011102	EPHEMEROPTERA	BAETIDAE	ACERPENNA	PYGMAEA	4.0	2	1	1	Hilsenhoff 1995,82
02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	2	4	1	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	2	2	0	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		0	2	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	5	1	5	Hilsenhoff 1995,82
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	1	0	0	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	8	5	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	6	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	8	4	3	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	2	0	0	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	4	2	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	0	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	1	1	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	1	0	2	Hilsenhoff 1995

04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	1	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	13	13	25	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	16	10	10	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	4	2	3	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	1	41	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	4	0	0	Hils., Schmude 1992
07040100	COLEOPTERA	PSEPHENIDAE	ECTOPRIA	**UNIDENTIFIED**	5.0	1	2	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	9	5	0	Hilsenhoff 1995
08071600	DIPTERA	EMPIDIDAE	**PUPA**			4	4	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	6	1	2	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		0	1	0	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	5	4	4	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		2	3	2	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	1	0	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	11	8	7	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	4	12	3	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	5	2	1	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	2	0	0	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	0	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	1	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	2	0	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	0	4	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	18	4	4	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		3	0	3	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	47	23	39	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	13	7	2	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	2	2	3	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	1	0	0	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	1	1	1	Epler 2001

08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	12	6	4	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	21	2	14	Holsinger 1972
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			1	2	0	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		5	3	6	Pennak 1978

S. BRANCH LITTLE WOLF RIVER

Location- 220 ft downstream of Weinmann Rd

SAMPLENUM- 20051002-69-24

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	1	2	1	Hilsenhoff 1995
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	1	3	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	5	18	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		10	8	3	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	28	24	12	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	0	0	Hilsenhoff 1995,82
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	4	18	4	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	1	1	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	4	1	21	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	27	74	73	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	3	3	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	1	1	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	2	20	15	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	2	3	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	2	0	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	0	1	0	Hilsenhoff 1995
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	1	2	2	Hilsenhoff 1995,82
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	21	9	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	13	12	4	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	8	7	4	Hils., Schmude 1992

07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	18	3	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	14	1	1	Hils., Schmude 1992
07040100	COLEOPTERA	PSEPHENIDAE	ECTOPRIA	**UNIDENTIFIED**	5.0	0	4	0	Hilsenhoff 1995
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	1	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	5	2	Hilsenhoff 1995
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	2	0	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	2	0	0	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	10	6	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	0	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	1	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	1	1	0	Holsinger 1972

S. BRANCH LITTLE WOLF RIVER

Location- 60 ft downstream of Paulsen Rd culvert.

SAMPLENUM- 20040505-69-44

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02010000	EPHEMEROPTERA	BAETIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	13	3	3	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	1	1	1	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	4	1	0	Hilsenhoff 1995,82
02040414	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	D. DOROTHEA	1.0	1	0	0	Hilsenhoff 1995,82
02040603	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	FRISONI		1	0	0	Hilsenhoff 1995,82

02050100	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	3	1	1	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	8	8	15	Hilsenhoff 1985b
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		0	0	3	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	4	2	0	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	3	7	1	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	18	3	11	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	11	0	7	Schmude, Hils. 1986
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	3	4	3	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	1	1	Hilsenhoff 1995
07020201	COLEOPTERA	ELMIDAE	DUBIRAPHIA	BIVITTATA	8.0	1	0	0	Hils., Schmude 1992
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	0	1	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	9	11	11	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	19	18	19	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	0	2	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	3	9	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	0	3	2	Hilsenhoff 1995
08071600	DIPTERA	EMPIDIDAE	**PUPA**			0	1	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	2	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	1	0	1	Hilsenhoff 1985
08110244	DIPTERA	SIMULIIDAE	SIMULIUM	FIBRINFLATUM	6.0	2	0	0	Hilsenhoff 1985
08110304	DIPTERA	SIMULIIDAE	PROSIMULIUM	MIXTUM	3.0	1	0	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	22	18	19	Hilsenhoff 1995
08170900	DIPTERA	STRATIOMYIDAE	STRATIOMYS	**UNIDENTIFIED**		1	0	3	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	2	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	3	0	1	Epler 2001

08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	0	1	1	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	0	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	12	6	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	1	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	1	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	25	30	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	3	2	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	10	2	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	6	2	8	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	3	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	40	71	54	Holsinger 1972

S. BRANCH LITTLE WOLF RIVER

Location- 60 ft downstream of Paulsen Rd culvert.

SAMPLENUM- 20051003-69-44

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	0	0	2	Hitchcock 1974
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	2	2	3	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	2	10	10	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	3	4	1	Hilsenhoff 1995,82
02011600	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995,82

02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	4	3	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	1	0	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	0	0	1	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	4	3	8	Hilsenhoff 1985b
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	0	2	1	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	15	5	9	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	1	0	2	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	4	1	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	15	19	17	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	1	2	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		2	0	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	2	1	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	15	12	28	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	11	5	13	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	3	2	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	3	1	4	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	0	2	Neunzig 1966
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	0	1	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	12	6	16	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	17	17	14	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	3	2	2	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	1	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	2	0	2	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	2	4	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	3	1	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	2	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	1	1	0	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		0	1	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995

08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	11	8	11	Hilsenhoff 1995
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	0	2	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	1	0	0	Epler 2001
08301300	DIPTERA	ORTHOCLADIINAE	EPOICOCLADIUS	**UNIDENTIFIED**	4.0	1	0	0	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	1	3	1	Epler 2001
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	6	1	1	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCCLADIUS	**UNIDENTIFIED**			0	1	0 Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	2	4	1	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		1	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			0	1	0	Epler 2001
08321300	DIPTERA	CHIRONOMINI	DICROTENDIPES	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	5	7	13	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	0	4	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	1	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	35	40	23	Holsinger 1972

S. BRANCH LITTLE WOLF RIVER

Location- 600 ft downstream of private drive west of Hwy. 110/54/22

SAMPLENUM- 20040507-69-16

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	1	0	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	3	1	0	Hilsenhoff 1995,82
02011604	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	DUBIUS	4.0	8	3	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	0	3	Hilsenhoff 1995,82

02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	0	0	Hilsenhoff 1995,82
02090100	EPHEMEROPTERA	POTAMANTHIDAE	ANTHOPOTAMUS	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995,82
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	0	0	2	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	13	1	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	11	9	7	Hilsenhoff 1995
04040202	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	CUANIS	6.0	0	1	0	Schmude, Hils. 1986
04040701	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	ALHEDRA	3.0	1	0	2	Schmude, Hils. 1986
04040704	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	MOROSA BIFIDA FORM	6.0	0	2	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	0	1	Schmude, Hils. 1986
04070600	TRICHOPTERA	LEPTOCERIDAE	SETODES	**UNIDENTIFIED**	2.0	0	1	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	1	0	1	Hilsenhoff 1995
07020202	COLEOPTERA	ELMIDAE	DUBIRAPHIA	MINIMA	5.0	0	0	1	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	0	13	18	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	1	0	2	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	6	17	19	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	18	11	8	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	2	3	0	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	11	6	2	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	3	3	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	8	18	25	Hilsenhoff 1995
08141300	DIPTERA	TIPULIDAE	**PUPA**			0	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	2	14	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	0	0	Epler 2001
08300918	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	TRIFASCIA	7.0	0	0	1	Epler 2001
08301405	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	DEVONICA GROUP	5.0	0	3	0	Epler 2001
08304808	DIPTERA	ORTHOCLADIINAE	TVETENIA	VITRACIES	5.0	0	0	1	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	0	1	Epler 2001

08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**		1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	10	22	16 Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	0	0 Epler 2001
08311000	DIPTERA	TANYTARSINI	SUBLETTEA	**UNIDENTIFIED**		8	13	8 Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	2	1	2 Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	3	3	4 Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	0	1	0 Epler 2001
08323000	DIPTERA	CHIRONOMINI	PARACLADOPELMA	**UNIDENTIFIED**	7.0	0	0	1 Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	0	1	1 Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	0	0	2 Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	0	0	1 Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	5	5	6 Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	64	26	39 Holsinger 1972
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**		9	15	16	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		20	1	0 Pennak 1978

S. BRANCH LITTLE WOLF RIVER

Location- 600 ft downstream of private drive west of Hwy. 110/54/22

SAMPLENUM- 20051002-69-16

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01070100	PLECOPTERA	PTERONARCYIDAE	PTERONARCYS	**UNIDENTIFIED**	0.0	0	0	1	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	5	1	0	Hilsenhoff 1995
02010100	EPHEMEROPTERA	BAETIDAE	BAETIS	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	0	0	1	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		2	2	3	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	0	3	3	Hilsenhoff 1995,82
02090100	EPHEMEROPTERA	POTAMANTHIDAE	ANTHOPOTAMUS	**UNIDENTIFIED**	4.0	0	0	3	Hilsenhoff 1995,82
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	16	14	0	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	4	5	9	Hilsenhoff 1985b

04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	3	1	6	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	2	6	0	Hilsenhoff 1995
04040202	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	CUANIS	6.0	1	0	1	Schmude, Hils. 1986
04040208	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	SCALARIS	2.0	8	7	2	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	16	8	4	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	4	15	5	Schmude, Hils. 1986
04070600	TRICHOPTERA	LEPTOCERIDAE	SETODES	**UNIDENTIFIED**	2.0	0	0	1	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	0	1	Hilsenhoff 1995
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	2	12	28	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	2	0	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	7	16	15	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	6	9	4	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	0	0	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	3	3	7	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	3	7	Hilsenhoff 1995
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	0	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	3	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	1	0	0	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	1	4	Hilsenhoff 1995
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	8	2	0	Epler 2001
08304701	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**PUPA**		4	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	7	1	3	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	10	8	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	2	1	1	Epler 2001
08321303	DIPTERA	CHIRONOMINI	DICROTENDIPES	FUMIDUS	8.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	5	5	9	Epler 2001

08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	2	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	7	14	2	Holsinger 1972

S. BRANCH LITTLE WOLF RIVER

Location- 80 ft. upstream of Rasmussen Road bridge.

SAMPLENUM- 20040507-69-12

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050500	PLECOPTERA	PERLIDAE	PERLESTA	**UNIDENTIFIED**		0	4	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	2	5	2	Hilsenhoff 1995,82
02040403	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	EXCRUCIANS	1.0	11	45	27	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	1	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	1	1	Hilsenhoff 1995,82
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	0	1	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	0	4	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	1	0	Hilsenhoff 1995
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	2	3	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	3	3	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	0	1	Schmude, Hils. 1986
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	4	4	3	Hilsenhoff 1995
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	1	1	1	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	10	0	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	0	1	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	1	2	Hilsenhoff 1995
08071600	DIPTERA	EMPIDIDAE	**PUPA**			0	0	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	11	18	21	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		3	4	3	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	1	0	0	Epler 2001

08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		1	0	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	3	1	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	3	0	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	0	Epler 2001
08306700	DIPTERA	ORTHOCLADIINAE	CRICOTOPUS/ORTHO	**UNIDENTIFIED**		0	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	96	52	40	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	2	2	3	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	2	0	4	Epler 2001
08321300	DIPTERA	CHIRONOMINI	DICROTENDIPES	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	4	3	4	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	2	1	0	Epler 2001
08324700	DIPTERA	CHIRONOMINI	C. (CHIRONOMUS)	**UNIDENTIFIED**	10.0	1	0	0	Epler 2001
08326000	DIPTERA	CHIRONOMINI	P. (POLYPEDILUM)	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	1	0	0	Epler 2001
08326112	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	SCALAENUM GROUP	7.0	3	1	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	2	0	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	39	72	53	Holsinger 1972
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			2	2	0	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		1	0	0	Pennak 1978

S. BRANCH LITTLE WOLF RIVER

Location- 80 ft. upstream of Rasmussen Road bridge.

SAMPLENUM- 20051002-69-12

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	3	1	3	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	2	0	0	Hilsenhoff 1995,82

02011503	EPHEMEROPTERA	BAETIDAE	PSEUDOCLOEON	PROPINQUUM	6.0	0	0	1	Hilsenhoff 1995,82
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	3	0	4	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	3	4	2	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	0	0	1	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995,82
02061503	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	MEDIOPUNCTATUM	3.0	0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	0	0	Hilsenhoff 1995,82
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		2	2	2	Hilsenhoff 1985b
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	16	12	6	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	2	2	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	8	5	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	1	2	Schmude, Hils. 1986
04050301	TRICHOPTERA	HYDROPTILIDAE	LEUCOTRICHIA	PICTIPES	2.0	1	0	1	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	4	2	4	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	10	3	8	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	1	2	3	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	31	32	12	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	6	11	9	Hilsenhoff 1995
07040100	COLEOPTERA	PSEPHENIDAE	ECTOPRIA	**UNIDENTIFIED**	5.0	2	0	0	Hilsenhoff 1995
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	0	1	0	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	0	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	0	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	14	4	16	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	2	0	0	Hilsenhoff 1995
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			1	0	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	0	0	Epler 2001
08300920	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	ANNULATOR COMPLEX	7.0	0	1	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	11	7	11	Epler 2001

08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	2	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	2	1	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	26	27	29	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	11	13	7	Holsinger 1972

S. FORK BLAKE CREEK

Location- 40 ft downstream of Betsul Rd culvert.

SAMPLENUM- 20040429-69-41

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040100	PLECOPTERA	NEMOURIDAE	AMPHINEMURA	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	1	0	0	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	18	10	8	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	2	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	1	0	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	1	0	7	Hilsenhoff 1995,82
03040100	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
03040101	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	MACULATA	3.0	0	1	2	Needham et al. 2000
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	0	1	0	Hilsenhoff 1985b
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	0	0	13	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	7	0	0	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	1	0	Hilsenhoff 1995
04080501	TRICHOPTERA	LIMNEPHILIDAE	HYDATOPHYLAX	ARGUS	2.0	1	0	0	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	0	5	3	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	6	8	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	0	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	14	25	4	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	10	30	19	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	5	13	2	Hils., Schmude 1992
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		2	8	1	Hilsenhoff 1995

08110201	DIPTERA	SIMULIIDAE	SIMULIUM	AUREUM	7.0	0	0	3	Hilsenhoff 1985
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	6	3	2	Hilsenhoff 1985
08110215	DIPTERA	SIMULIIDAE	SIMULIUM	VENUSTUM	5.0	0	0	1	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	6	2	8	Hilsenhoff 1985
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	0	0	1	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	2	2	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	1	1	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	0	1	3	Hilsenhoff 1995
08140800	DIPTERA	TIPULIDAE	LIMNOPHILA	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	0	1	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		1	0	1	Hilsenhoff 1995
08180100	DIPTERA	CULICIDAE	AEDES	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		2	0	4	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	10	14	17	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	1	0	0	Epler 2001
08302900	DIPTERA	ORTHOCLADIINAE	PARAKIEFFERIELLA	**UNIDENTIFIED**		1	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	1	1	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	2	2	Epler 2001
08305300	DIPTERA	ORTHOCLADIINAE	N. (NANOCLADIUS)	**UNIDENTIFIED**	3.0	2	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	2	0	2	Epler 2001
08306900	DIPTERA	ORTHOCLADIINAE	HELENIELLA	**UNIDENTIFIED**		0	0	2	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	5	1	4	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	6	7	3	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	0	0	1	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	1	0	2	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	32	19	18	Holsinger 1972

S. FORK BLAKE CREEK

Location- 40 ft downstream of Betsul Rd culvert.

SAMPLENUM- 20051001-69-41

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	1	3	0	Hitchcock 1974
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	3	1	0	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	11	3	2	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	24	4	0	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	9	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	11	3	0	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	1	3	0	Hilsenhoff 1995,82
03010401	ODONATA	AESHNIDAE	BOYERIA	VINOSA	2.0	0	1	0	Needham et al. 2000
03020101	ODONATA	CALOPTERYGIDAE	CALOPTERYX	AEQUABILIS	5.0	2	1	0	Needham et al. 2000
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	3	2	0	Hilsenhoff 1985b
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		3	0	0	Hilsenhoff 1985b
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	3	7	0	Hilsenhoff 1995
04040208	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	SCALARIS	2.0	1	0	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	3	0	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	4	2	3	Hilsenhoff 1995
04080501	TRICHOPTERA	LIMNAPHILIDAE	HYDATOPHYLAX	ARGUS	2.0	2	1	1	Hilsenhoff 1995
04110201	TRICHOPTERA	PHILOPOTAMIDAE	DOLOPHILODES	DISTINCTUS	0.0	2	1	0	Hilsenhoff 1995,82
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	0	7	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	0	1	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	0	1	0	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	0	2	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	1	0	0	Hilsenhoff 1995
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08100100	DIPTERA	PSYCHODIDAE	PERICOMA	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	1	1	0	Hilsenhoff 1985

08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	2	0	1	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	0	1	1	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
08273400	DIPTERA	TANYPODINAE	REOMYIA	**UNIDENTIFIED**		0	2	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		1	0	2	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			1	1	1	Epler 2001
08300401	DIPTERA	ORTHOCLADIINAE	BRILLIA	FLAVIFRONS	5.0	1	1	0	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	2	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	4	0	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08304300	DIPTERA	ORTHOCLADIINAE	STILOCLADIUS	**UNIDENTIFIED**		0	1	0	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	2	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	2	0	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	0	3	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	7	0	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			0	1	0	Epler 2001
08322502	DIPTERA	CHIRONOMINI	MICROTENDIPES	RYDALENSIS GROUP	6.0	0	1	0	Epler 2001
08324003	DIPTERA	CHIRONOMINI	STICTOCHIRONOMUS	DEVINCTUS	9.0	2	0	2	Epler 2001
08326018	DIPTERA	CHIRONOMINI	P. (POLYPEDILUM)	FALLAX GROUP	4.0	2	1	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	0	0	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		1	1	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	34	78	113	Holsinger 1972

S. TRIB. WHITCOMB CREEK

Location- 50 ft downstream of Carper Rd culvert.

SAMPLENUM- 20040503-69-46

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
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01040100	PLECOPTERA	NEMOURIDAE	AMPHINEMURA	**UNIDENTIFIED**		4	6	10	Hilsenhoff 1995
01040201	PLECOPTERA	NEMOURIDAE	NEMOURA	TRISPINOSA	1.0	6	13	7	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	7	13	7	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	0	1	0	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	0	1	0	Hilsenhoff 1995,82
04010101	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	AMERICANUS	1.0	1	0	0	Hilsenhoff 1985b
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	0	0	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	0	2	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	5	2	0	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	18	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	3	1	0	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	1	1	Hils., Schmude 1992
08030300	DIPTERA	CERATOPOGONIDAE	CULICOIDES	**UNIDENTIFIED**	10.0	1	0	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	10	1	9	Hilsenhoff 1985
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	0	4	Hilsenhoff 1985
08110243	DIPTERA	SIMULIIDAE	SIMULIUM	LONGISTYLATUM		1	39	0	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	2	2	0	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	1	1	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	4	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		0	0	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	8	14	8	Epler 2001
08280302	DIPTERA	DIAMESINAE	POTTHASTIA	LONGIMANA GROUP	2.0	2	0	0	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	0	2	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	1	1	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	12	22	72	Epler 2001
08304000	DIPTERA	ORTHOCLADIINAE	RHEOCRICOTOPUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001

08304600	DIPTERA	ORTHOCLADIINAE	SYNORTHOCLADIUS	**UNIDENTIFIED**	2.0	0	0	1	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	1	2	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	4	5	7	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	4	0	6	Epler 2001
08306900	DIPTERA	ORTHOCLADIINAE	HELENIELLA	**UNIDENTIFIED**		3	2	0	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	41	15	10	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	2	12	16	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	12	3	6	Holsinger 1972

S. TRIB. WHITCOMB CREEK

Location- 50 ft downstream of Carper Rd culvert.

SAMPLENUM- 20051001-69-46

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	53	22	42	Hitchcock 1974
01060406	PLECOPTERA	PERLODIDAE	ISOPERLA	LATA	0.0	0	0	2	Hilsenhoff 1981,82
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	1	0	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	1	0	0	Hilsenhoff 1995
02010100	EPHEMEROPTERA	BAETIDAE	BAETIS	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	1	0	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	9	8	16	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	5	2	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	1	0	0	Hilsenhoff 1995,82
03040100	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	13	7	4	Hilsenhoff 1985b
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	0	4	0	Bright 2003
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	5	2	4	Hilsenhoff 1995
04040200	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	0	4	Hilsenhoff 1995

04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	4	5	4	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	3	0	Schmude, Hils. 1986
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	0	1	0	Hilsenhoff 1995
04110201	TRICHOPTERA	PHILOPOTAMIDAE	DOLOPHILODES	DISTINCTUS	0.0	2	1	1	Hilsenhoff 1995,82
04120400	TRICHOPTERA	PHRYGANEIDAE	PTILOSTOMIS	**UNIDENTIFIED**	5.0	0	2	1	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	0	2	2	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	17	9	7	Neunzig 1966
05020100	MEGALOPTERA	SIALIDAE	SIALIS	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	3	1	2	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	5	7	5	Hils., Schmude 1992
07051000	COLEOPTERA	DYTISCIDAE	COPTOTOMUS	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995
08031900	DIPTERA	CERATOPOGONIDAE	CERATOPOGON	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	5	0	2	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	3	11	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	5	3	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	1	1	0	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		1	0	1	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	3	2	1	Epler 2001
08271400	DIPTERA	TANYPODINAE	LARSIA	**UNIDENTIFIED**	6.0	0	6	0	Epler 2001
08271500	DIPTERA	TANYPODINAE	MACROPELOPIA	**UNIDENTIFIED**		0	2	1	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	0	1	0	Epler 2001
08273400	DIPTERA	TANYPODINAE	REOMYIA	**UNIDENTIFIED**		3	0	0	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		0	4	4	Epler 2001
08274500	DIPTERA	TANYPODINAE	THIENEMANNIMYIA	**UNIDENTIFIED**	6.0	0	2	0	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	0	1	Epler 2001
08300600	DIPTERA	ORTHOCLADIINAE	CHAETOCADIUS	**UNIDENTIFIED**	6.0	1	2	0	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCADIUS	**UNIDENTIFIED**		1	0	0	Epler 2001

08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	3	0	2	Epler 2001
08304300	DIPTERA	ORTHOCLADIINAE	STILOCLADIUS	**UNIDENTIFIED**		0	2	0	Epler 2001
08304800	DIPTERA	ORTHOCLADIINAE	TVETENIA	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08305200	DIPTERA	ORTHOCLADIINAE	NANOCLADIUS	**UNIDENTIFIED**	3.0	1	0	0	Epler 2001
08305402	DIPTERA	ORTHOCLADIINAE	N.	BRANCHICOLUS	3.0	0	1	1	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	2	0	0	Epler 2001
08305500	DIPTERA	ORTHOCLADIINAE	ORTHOCLADIUS	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	5	11	4	Epler 2001
08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			0	0	1	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		0	1	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	0	3	0	Holsinger 1972

SHAW CREEK

Location- 20 ft upstream of Cnty O bridge

SAMPLENUM- 20051001-69-50

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	1	0	0	Hilsenhoff 1995
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	1	0	3	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	1	0	0	Hilsenhoff 1995,82
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		0	0	2	Hilsenhoff 1985b
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	10	0	21	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	0	5	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	3	0	Hilsenhoff 1995
04080501	TRICHOPTERA	LIMNEPHILIDAE	HYDATOPHYLAX	ARGUS	2.0	3	6	1	Hilsenhoff 1995
04080700	TRICHOPTERA	LIMNEPHILIDAE	LIMNEPHILUS	**UNIDENTIFIED**	3.0	0	3	2	Hilsenhoff 1995
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	1	0	0	Hils., Schmude 1992

07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	0	1	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	1	0	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	4	0	2	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	3	0	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	0	1	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	27	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	1	2	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	0	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	3	1	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	98	83	76	Holsinger 1972
10010102	ISOPODA	ASELLIDAE	CAECIDOTEA	R. RACOVITZAI	8.0	17	5	15	Williams 1972

SPAULDING CREEK

Location- 630 ft downstream of Cnty G bridge

SAMPLENUM- 20040429-69-38

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01040000	PLECOPTERA	NEMOURIDAE	**UNIDENTIFIED**			0	0	1	Hilsenhoff 1995
01040201	PLECOPTERA	NEMOURIDAE	NEMOURA	TRISPINOSA	1.0	0	0	1	Hilsenhoff 1995
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	0	1	Hilsenhoff 1995,82
02010103	EPHEMEROPTERA	BAETIDAE	BAETIS	INTERCALARIS	6.0	3	2	0	Hilsenhoff 1995,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGHII	5.0	0	0	12	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	1	0	2	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	1	0	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	0	0	4	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	0	5	Hilsenhoff 1995,82
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	0	1	0	Hilsenhoff 1985b
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	0	0	1	Hilsenhoff 1985b

04020200	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**UNIDENTIFIED**	0.0	0	0	1	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	16	9	16	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	2	15	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	1	0	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	3	0	12	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	1	0	0	Schmude, Hils. 1986
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	1	0	3	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	0	0	7	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	2	0	5	Hilsenhoff 1995
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	0	1	1	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	6	12	13	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	6	4	25	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	2	2	11	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	0	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	0	4	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	7	2	Hilsenhoff 1995
08070300	DIPTERA	EMPIDIDAE	CHELIFERA	**UNIDENTIFIED**	6.0	1	0	0	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	0	1	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		0	0	3	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	2	0	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	1	3	13	Hilsenhoff 1995
08141300	DIPTERA	TIPULIDAE	**PUPA**			2	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	11	6	Epler 2001
08270000	DIPTERA	TANYPODINAE	**UNIDENTIFIED**			0	0	1	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08280200	DIPTERA	DIAMESINAE	PAGASTIA	**UNIDENTIFIED**	1.0	2	1	1	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	1	0	Epler 2001

08301700	DIPTERA	ORTHOCLADIINAE	HYDROBAENUS	**UNIDENTIFIED**	8.0	0	1	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	4	7	2	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	2	1	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	4	1	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	3	2	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	111	75	5	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	1	1	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	4	11	6	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	0	4	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	2	0	3	Holsinger 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		1	0	0	Pennak 1978
14090000	GASTROPODA	HYDROBIIDAE	**UNIDENTIFIED**			1	0	0	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		1	0	0	Pennak 1978

SPAULDING CREEK

Location- 630 ft downstream of Cnty G bridge

SAMPLENUM- 20051001-69-38

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010000	PLECOPTERA	CAPNIIDAE	**UNIDENTIFIED**			0	0	1	Hilsenhoff 1995
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	0	2	0	Hitchcock 1974
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	1	0	1	Hilsenhoff 1995,82
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	2	2	13	Hilsenhoff 1995
02010101	EPHEMEROPTERA	BAETIDAE	BAETIS	BRUNNEICOLOR	4.0	2	5	7	Hilsenhoff 1995,82
02020103	EPHEMEROPTERA	BAETISCIDAE	BAETISCA	LAURENTINA	3.0	1	4	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	0	1	0	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	0	2	Hilsenhoff 1995,82
02050101	EPHEMEROPTERA	EPHEMERIDAE	EPHEMERA	SIMULANS	1.0	0	1	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	4	0	0	Hilsenhoff 1995,82
04010104	TRICHOPTERA	BRACHYCENTRIDAE	BRACHYCENTRUS	OCCIDENTALIS	1.0	3	14	13	Hilsenhoff 1985b

04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	17	16	8	Hilsenhoff 1995
04040000	TRICHOPTERA	HYDROPSYCHIDAE	**UNIDENTIFIED**			0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	20	12	28	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	3	0	Schmude, Hils. 1986
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	2	0	2	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	5	15	8	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	0	0	3	Hilsenhoff 1995
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		0	0	3	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	0	1	2	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	0	0	2	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	3	0	0	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	31	15	4	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	31	18	25	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	0	0	7	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	1	0	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	3	0	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	5	2	4	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	0	1	0	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCLEIDIUS	**UNIDENTIFIED**		1	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	8	7	8	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	0	0	Epler 2001
08322600	DIPTERA	CHIRONOMINI	NILOTHAUMA	**UNIDENTIFIED**	2.0	0	1	0	Epler 2001
08330000	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**			0	1	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	16	10	5	Holsinger 1972

SPAULDING CREEK

**Location- 70 ft downstream of Cty E bridge
 SAMPLenum- 20040512-69-59**

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	2	1	0	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	4	1	2	Hilsenhoff 1995
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	1	1	1	Hilsenhoff 1995,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	1	3	2	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	12	9	12	Hilsenhoff 1995,82
02040406	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	SUBVARIA	1.0	1	0	2	Hilsenhoff 1995,82
02060201	EPHEMEROPTERA	HEPTAGENIIDAE	EPEORUS	VITREUS	0.0	1	0	3	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	4	5	3	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	10	14	18	Hilsenhoff 1995,82
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	0	2	0	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	2	2	2	Bright 2003
04020203	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	**PUPA**		0	4	3	Merritt, Cummins 96
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	4	1	5	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	10	5	7	Hilsenhoff 1995
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	0	2	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	0	1	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	4	0	2	Hilsenhoff 1995
04080501	TRICHOPTERA	LIMNAPHILIDAE	HYDATOPHYLAX	ARGUS	2.0	0	1	0	Hilsenhoff 1995
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	1	2	0	Hilsenhoff 1995,82
04110103	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	OBSCURA	4.0	0	3	1	Hilsenhoff 1995,82
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	9	2	0	Hilsenhoff 1995
04190106	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**PUPA**		0	3	0	Merritt, Cummins 84
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	6	12	6	Neunzig 1966
07010103	COLEOPTERA	DRYOPIDAE	HELICHUS	STRIATUS	5.0	0	0	1	Hils., Schmude 1992
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	1	0	0	Hils., Schmude 1992

07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	13	12	28	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	17	7	6	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	1	1	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	2	2	1	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	0	1	2	Hils., Schmude 1992
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	4	0	5	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	1	0	0	Hilsenhoff 1985
08110218	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	4.0	1	0	0	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	2	5	2	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	1	0	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		5	5	4	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	3	12	7	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	2	3	1	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	0	5	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	1	2	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	3	3	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	0	2	Epler 2001
08310400	DIPTERA	TANYTARSINI	PARATANYTARSUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08310700	DIPTERA	TANYTARSINI	STEMPELLINELLA	**UNIDENTIFIED**	4.0	1	1	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	2	3	4	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	1	0	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	0	3	1	Holsinger 1972

SPAULDING CREEK

Location- 70 ft downstream of Cty E bridge

SAMPLENUM- 20051001-69-59

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01010301	PLECOPTERA	CAPNIIDAE	PARACAPNIA	ANGULATA	1.0	6	6	10	Hitchcock 1974
01050100	PLECOPTERA	PERLIDAE	ACRONEURIA	**UNIDENTIFIED**	0.0	0	1	0	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	2	2	1	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	17	11	17	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	5	8	4	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	14	17	10	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		0	2	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	2	1	6	Hilsenhoff 1995,82
02070205	EPHEMEROPTERA	LEPTOPHLEBIIDAE	PARALEPTOPHLEBIA	MOLLIS	1.0	9	10	13	Hilsenhoff 1995,82
03010401	ODONATA	AESHNIDAE	BOYERIA	VINOSA	2.0	0	1	1	Needham et al. 2000
03040100	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	**UNIDENTIFIED**		0	0	2	Hilsenhoff 1995
04010202	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	RUSTICUM	2.0	0	0	2	Hilsenhoff 1985b
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	1	2	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	8	8	12	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	0	2	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	2	0	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	0	1	Schmude, Hils. 1986
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	37	12	27	Hilsenhoff 1995,82
04110301	TRICHOPTERA	PHILOPOTAMIDAE	WORMALDIA	MOESTA	0.0	1	0	1	Hilsenhoff 1995,82
04140101	TRICHOPTERA	PSYCHOMYIIDAE	LYPE	DIVERSA	2.0	0	1	0	Hilsenhoff 1995
04180101	TRICHOPTERA	GOERIDAE	GOERA	STYLATA	0.0	0	0	1	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	9	7	4	Neunzig 1966
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	7	35	8	Hilsenhoff 1995

07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	1	7	8	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	0	2	2	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	3	3	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	0	1	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	2	0	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	0	3	0	Hilsenhoff 1995
08140600	DIPTERA	TIPULIDAE	HEXATOMA	**UNIDENTIFIED**	2.0	0	1	0	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	1	0	2	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		1	0	0	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	2	2	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		0	1	0	Epler 2001
08300000	DIPTERA	ORTHOCLADIINAE	**UNIDENTIFIED**			0	3	0	Epler 2001
08300401	DIPTERA	ORTHOCLADIINAE	BRILLIA	FLAVIFRONS	5.0	0	1	1	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	0	1	0	Epler 2001
08302800	DIPTERA	ORTHOCLADIINAE	PARACHAETOCADIUS	**UNIDENTIFIED**		0	2	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	1	1	0	Epler 2001
08305200	DIPTERA	ORTHOCLADIINAE	NANOCLADIUS	**UNIDENTIFIED**	3.0	0	0	1	Epler 2001
08305402	DIPTERA	ORTHOCLADIINAE	N.	BRANCHICOLUS	3.0	0	1	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	7	6	15	Epler 2001
08305812	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	ROBACKI	6.0	0	0	1	Epler 2001
08310000	DIPTERA	TANYTARSINI	**UNIDENTIFIED**			1	2	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	1	7	6	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	2	0	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	3	0	Epler 2001

08320000	DIPTERA	CHIRONOMINI	**UNIDENTIFIED**			0	1	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	0	1	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	1	0	0	Epler 2001

TROUT CREEK

Location- 80 ft downstream of Johnson Drive off Trout Creek Road.

SAMPLENUM- 20040511-50-22

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	1	0	1	Hilsenhoff 1995,82
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	1	0	0	Hilsenhoff 1995,82
02011101	EPHEMEROPTERA	BAETIDAE	ACERPENNA	MACDUNNOUGH	5.0	1	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	0	0	1	Hilsenhoff 1995,82
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	2	7	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	4	2	2	Schmude, Hils. 1986
04040700	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	3	2	6	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	1	0	Schmude, Hils. 1986
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
04070500	TRICHOPTERA	LEPTOCERIDAE	OECETIS	**UNIDENTIFIED**	8.0	1	0	0	Hilsenhoff 1995
04110102	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	FERIA	1.0	0	2	0	Hilsenhoff 1995,82
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	1	0	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	1	8	2	Hilsenhoff 1995
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	3	0	7	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	0	2	Hils., Schmude 1992
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		3	1	0	Hilsenhoff 1995
08110211	DIPTERA	SIMULIIDAE	SIMULIUM	CORBIS	2.0	0	0	1	Hilsenhoff 1985
08110214	DIPTERA	SIMULIIDAE	SIMULIUM	TUBEROSUM	4.0	0	9	0	Hilsenhoff 1985
08110215	DIPTERA	SIMULIIDAE	SIMULIUM	VENUSTUM	5.0	1	0	0	Hilsenhoff 1985

08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	11	6	7	Hilsenhoff 1985
08110217	DIPTERA	SIMULIIDAE	SIMULIUM	VITTATUM "COMPLEX"	7.0	0	0	5	Hilsenhoff 1985
08110243	DIPTERA	SIMULIIDAE	SIMULIUM	LONGISTYLATUM		3	0	0	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		0	0	2	Hilsenhoff 1985
08110501	DIPTERA	SIMULIIDAE	STEGOPTERNA	MUTATA	5.0	0	11	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	0	2	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	0	1	0	Hilsenhoff 1995
08170800	DIPTERA	STRATIOMYIDAE	OXYCERA	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		0	1	1	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	1	4	2	Epler 2001
08280100	DIPTERA	DIAMESINAE	DIAMESA	**UNIDENTIFIED**	5.0	1	1	1	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	1	0	0	Epler 2001
08301402	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	CLARIPENNIS GROUP	8.0	9	6	5	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		95	83	91	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	1	0	1	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	0	2	2	Epler 2001
08310300	DIPTERA	TANYTARSINI	MICROPSECTRA	**UNIDENTIFIED**	7.0	0	0	1	Epler 2001
08310600	DIPTERA	TANYTARSINI	STEMPELLINA	**UNIDENTIFIED**	2.0	0	0	1	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08325904	DIPTERA	CHIRONOMINI	P. (PENTAPEDILUM)	SP. A EPLER	4.0	1	2	1	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	0	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	3	0	0	Holsinger 1972
10010100	ISOPODA	ASELLIDAE	CAECIDOTEA	**UNIDENTIFIED**		1	1	0	Williams 1972
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		2	0	11	Pennak 1978

TROUT CREEK

Location- 80 ft downstream of Johnson Drive off Trout Creek Road.

SAMPLENUM- 20051003-50-22

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
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01060410	PLECOPTERA	PERLODIDAE	ISOPERLA	SIGNATA	2.0	0	6	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	2	7	4	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	1	0	2	Hilsenhoff 1995,82
03040100	ODONATA	CORDULEGASTRIDAE	CORDULEGASTER	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
03060000	ODONATA	GOMPHIDAE	**UNIDENTIFIED**			2	0	0	Hilsenhoff 1995
03060205	ODONATA	GOMPHIDAE	GOMPHUS	SPICATUS	5.0	1	0	0	Needham et al. 2000
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	1	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	0	0	3	Hilsenhoff 1995
04040201	TRICHOPTERA	HYDROPSYCHIDAE	HYDROPSYCHE	BETTENI	6.0	0	0	2	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	0	2	8	Schmude, Hils. 1986
04060100	TRICHOPTERA	LEPIDOSTOMATIDAE	LEPIDOSTOMA	**UNIDENTIFIED**	1.0	1	0	0	Hilsenhoff 1995
04070300	TRICHOPTERA	LEPTOCERIDAE	MYSTACIDES	**UNIDENTIFIED**		1	1	4	Hilsenhoff 1995
04110102	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	FERIA	1.0	0	0	33	Hilsenhoff 1995,82
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	2	1	1	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	2	3	0	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	0	8	2	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	1	0	0	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	59	78	27	Hilsenhoff 1995
07060100	COLEOPTERA	HALIPLIDAE	HALIPLUS	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
07110000	COLEOPTERA	SCIRTIDAE	**UNIDENTIFIED**			1	0	0	Hilsenhoff 1995
08031900	DIPTERA	CERATOPOGONIDAE	CERATOPOGON	**UNIDENTIFIED**		3	2	0	Hilsenhoff 1995
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	1	5	1	Hilsenhoff 1995
08140200	DIPTERA	TIPULIDAE	DICRANOTA	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		0	0	1	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	2	4	2	Epler 2001
08273000	DIPTERA	TANYPODINAE	ZAVRELIMYIA	**UNIDENTIFIED**	8.0	1	0	0	Epler 2001
08301900	DIPTERA	ORTHOCLADIINAE	LOPESCLADIUS	**UNIDENTIFIED**		2	30	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	0	2	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	4	6	0	Epler 2001

08310700	DIPTERA	TANYTARSINI	STEMPELLINELLA	**UNIDENTIFIED**	4.0	0	0	1	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	1	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	2	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	12	3	23	Holsinger 1972
10010102	ISOPODA	ASELLIDAE	CAECIDOTEA	R. RACOVITZAI	8.0	49	8	33	Williams 1972
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		0	20	7	Pennak 1978

WHITCOMB CREEK

Location- 20 ft upstream of Cnty OO bridge
 SAMPLENUM- 20040503-69-48

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050000	PLECOPTERA	PERLIDAE	**UNIDENTIFIED**			0	1	0	Hilsenhoff 1995
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	1	0	0	Hilsenhoff 1995
02010100	EPHEMEROPTERA	BAETIDAE	BAETIS	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
02010104	EPHEMEROPTERA	BAETIDAE	BAETIS	FLAVISTRIGA	4.0	0	0	1	Hilsenhoff 1995,82
02011606	EPHEMEROPTERA	BAETIDAE	PLAUDITUS	PUNCTIVENTRIS	5.0	6	1	2	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	0	1	1	Hilsenhoff 1995,82
02040404	EPHEMEROPTERA	EPHEMERELLIDAE	EPHEMERELLA	INVARIA	1.0	2	0	0	Hilsenhoff 1995,82
02061100	EPHEMEROPTERA	HEPTAGENIIDAE	LEUCROCUTA	**UNIDENTIFIED**		0	1	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		4	0	0	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	5	0	0	Hilsenhoff 1995,82
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	1	0	0	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	4	0	0	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	1	0	0	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	1	0	0	Schmude, Hils. 1986
04080100	TRICHOPTERA	LIMNEPHILIDAE	ANABOLIA	**UNIDENTIFIED**	5.0	1	0	0	Hilsenhoff 1995
04081300	TRICHOPTERA	LIMNEPHILIDAE	PYCNOPSYCHE	**UNIDENTIFIED**	4.0	1	0	0	Hilsenhoff 1995
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	3	0	5	Hilsenhoff 1995
04190100	TRICHOPTERA	UENOIDAE	NEOPHYLAX	**UNIDENTIFIED**	3.0	0	0	1	Hilsenhoff 1995

05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	2	0	0	Neunzig 1966
07020200	COLEOPTERA	ELMIDAE	DUBIRAPHIA	**UNIDENTIFIED**	6.0	0	1	0	Hilsenhoff 1995
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	38	42	29	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	21	10	13	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	15	7	3	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	5	3	2	Hilsenhoff 1995
07040100	COLEOPTERA	PSEPHENIDAE	ECTOPRIA	**UNIDENTIFIED**	5.0	0	0	1	Hilsenhoff 1995
08110200	DIPTERA	SIMULIIDAE	SIMULIUM	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	17	1	1	Hilsenhoff 1985
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	7	0	0	Hilsenhoff 1995
08141300	DIPTERA	TIPULIDAE	**PUPA**			1	0	1	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		6	1	1	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	4	0	0	Epler 2001
08301401	DIPTERA	ORTHOCLADIINAE	EUKIEFFERIELLA	BREHMI GROUP	8.0	2	0	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	0	1	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	1	0	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	7	2	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	3	65	90	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	5	5	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	0	1	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	0	0	4	Epler 2001
08326202	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	AVICEPS	5.0	4	4	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	3	5	15	Holsinger 1972

WHITCOMB CREEK

Location- 20 ft upstream of Cnty OO bridge

SAMPLENUM- 20051001-69-48

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
01050401	PLECOPTERA	PERLIDAE	PARAGNETINA	MEDIA	1.0	5	6	12	Hilsenhoff 1995
01070100	PLECOPTERA	PTERONARCYSIDAE	PTERONARCYS	**UNIDENTIFIED**	0.0	0	2	0	Hilsenhoff 1995
01080300	PLECOPTERA	TAENIOPTERYGIDAE	TAENIOPTERYX	**UNIDENTIFIED**	2.0	3	2	3	Hilsenhoff 1995
02010116	EPHEMEROPTERA	BAETIDAE	BAETIS	TRICAUDATUS	2.0	1	2	0	Hilsenhoff 1995,82
02030200	EPHEMEROPTERA	CAENIDAE	CAENIS	**UNIDENTIFIED**	7.0	0	0	1	Hilsenhoff 1995,82
02040601	EPHEMEROPTERA	EPHEMERELLIDAE	SERRATELLA	DEFICIENS	2.0	0	0	1	Hilsenhoff 1995,82
02060501	EPHEMEROPTERA	HEPTAGENIIDAE	STENACRON	INTERPUNCTATUM	7.0	0	1	0	Hilsenhoff 1995,82
02061500	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	**UNIDENTIFIED**		3	6	3	Hilsenhoff 1995,82
02061509	EPHEMEROPTERA	HEPTAGENIIDAE	MACCAFFERTIUM	VICARIUM	2.0	12	18	16	Hilsenhoff 1995,82
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	0	2	0	Hilsenhoff 1995,82
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		1	0	0	Hilsenhoff 1985b
04020201	TRICHOPTERA	GLOSSOSOMATIDAE	GLOSSOSOMA	INTERMEDIUM	0.0	1	0	0	Bright 2003
04020300	TRICHOPTERA	GLOSSOSOMATIDAE	PROTOPTILA	**UNIDENTIFIED**	1.0	0	1	0	Hilsenhoff 1995
04030101	TRICHOPTERA	HELICOPSYCHIDAE	HELICOPSYCHE	BOREALIS	3.0	0	2	2	Hilsenhoff 1995
04040100	TRICHOPTERA	HYDROPSYCHIDAE	CHEUMATOPSYCHE	**UNIDENTIFIED**	5.0	8	8	8	Hilsenhoff 1995
04040703	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	BRONTA	5.0	4	4	4	Schmude, Hils. 1986
04040706	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SLOSSONAE	4.0	3	5	5	Schmude, Hils. 1986
04040707	TRICHOPTERA	HYDROPSYCHIDAE	CERATOPSYCHE	SPARNA	1.0	0	0	2	Schmude, Hils. 1986
04110101	TRICHOPTERA	PHILOPOTAMIDAE	CHIMARRA	ATERRIMA	4.0	0	1	0	Hilsenhoff 1995,82
04140201	TRICHOPTERA	PSYCHOMYIIDAE	PSYCHOMYIA	FLAVIDA	2.0	4	7	0	Hilsenhoff 1995
05010301	MEGALOPTERA	CORYDALIDAE	NIGRONIA	SERRICORNIS	0.0	1	3	3	Neunzig 1966
07020301	COLEOPTERA	ELMIDAE	MACRONYCHUS	GLABRATUS	4.0	0	1	0	Hils., Schmude 1992
07020500	COLEOPTERA	ELMIDAE	OPTIOSERVUS	**UNIDENTIFIED**	4.0	24	20	27	Hilsenhoff 1995
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	19	7	27	Hils., Schmude 1992
07020502	COLEOPTERA	ELMIDAE	OPTIOSERVUS	TRIVITTATUS	2.0	21	10	19	Hils., Schmude 1992
07020600	COLEOPTERA	ELMIDAE	STENELMIS	**UNIDENTIFIED**	5.0	7	8	3	Hilsenhoff 1995
07020601	COLEOPTERA	ELMIDAE	STENELMIS	CRENATA	5.0	1	1	4	Hils., Schmude 1992
08010101	DIPTERA	ATHERICIDAE	ATHERIX	VARIEGATA	2.0	0	0	1	Hilsenhoff 1995

08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	1	0	4	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	5	7	3	Hilsenhoff 1995
08300401	DIPTERA	ORTHOCLADIINAE	BRILLIA	FLAVIFRONS	5.0	1	0	0	Epler 2001
08300910	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	BICINCTUS	6.0	1	0	0	Epler 2001
08304300	DIPTERA	ORTHOCLADIINAE	STILOCLADIUS	**UNIDENTIFIED**		0	0	1	Epler 2001
08304700	DIPTERA	ORTHOCLADIINAE	THIENEMANNIELLA	**UNIDENTIFIED**	6.0	2	0	0	Epler 2001
08304806	DIPTERA	ORTHOCLADIINAE	TVETENIA	PAUCUNCA	4.0	2	1	3	Epler 2001
08305500	DIPTERA	ORTHOCLADIINAE	ORTHOCLADIUS	**UNIDENTIFIED**	6.0	1	1	1	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	2	0	0	Epler 2001
08310500	DIPTERA	TANYTARSINI	RHEOTANYTARSUS	**UNIDENTIFIED**	6.0	0	0	2	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	1	0	Epler 2001
08322502	DIPTERA	CHIRONOMINI	MICROTENDIPES	RYDALENSIS GROUP	6.0	0	0	1	Epler 2001
08330001	DIPTERA	CHIRONOMINAE	**UNIDENTIFIED**	**PUPA**		2	1	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	4	4	3	Holsinger 1972

WHITE LAKE OUTLET

Location- 30 ft upstream from Hwy 54 culvert

SAMPLENUM- 20040504-69-57

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
04080700	TRICHOPTERA	LIMNEPHILIDAE	LIMNEPHILUS	**UNIDENTIFIED**	3.0	3	0	0	Hilsenhoff 1995
08110216	DIPTERA	SIMULIIDAE	SIMULIUM	VERECUNDUM	6.0	3	5	1	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	0	1	1	Hilsenhoff 1995
08141000	DIPTERA	TIPULIDAE	PILARIA	**UNIDENTIFIED**	7.0	1	2	0	Hilsenhoff 1995
08141300	DIPTERA	TIPULIDAE	**PUPA**			1	1	0	Hilsenhoff 1995
08250002	DIPTERA	CHIRONOMIDAE	**UNIDENTIFIED**	**PUPA**		34	5	7	Epler 2001
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	2	3	3	Epler 2001
08300900	DIPTERA	ORTHOCLADIINAE	C. (CRICOTOPUS)	**UNIDENTIFIED**	7.0	0	1	0	Epler 2001
08303000	DIPTERA	ORTHOCLADIINAE	PARAMETRIOCNEMU	**UNIDENTIFIED**	5.0	0	2	0	Epler 2001
08305800	DIPTERA	ORTHOCLADIINAE	O. (ORTHOCLADIUS)	**UNIDENTIFIED**	6.0	2	3	4	Epler 2001

08306003	DIPTERA	ORTHOCLADIINAE	O.	LIGNICOLA	6.0	0	1	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	59	41	38	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	0	1	0	Epler 2001
08320800	DIPTERA	CHIRONOMINI	CRYPTOCHIRONOMU	**UNIDENTIFIED**	8.0	0	1	0	Epler 2001
08323200	DIPTERA	CHIRONOMINI	PARATENDIPES	**UNIDENTIFIED**	8.0	0	1	0	Epler 2001
08326111	DIPTERA	CHIRONOMINI	P. (TRIPODURA)	HALTERALE GROUP	3.0	1	1	0	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	0	0	1	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	60	74	78	Holsinger 1972
10010100	ISOPODA	ASELLIDAE	CAECIDOTEA	**UNIDENTIFIED**		1	0	1	Williams 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		4	0	0	Pennak 1978
15010203	PELECYPODA	PISIDIIDAE	SPHAERIUM	SIMILE		2	0	0	Pennak 1978

WHITE LAKE OUTLET

Location- 30 ft upstream from Hwy 54 culvert

SAMPLENUM- 20051002-69-57

IDNUM	ORDER	FAMILY	GENUS	SPECIES	TOLVAL	REP1	REP2	REP3	TAXKEY
02070101	EPHEMEROPTERA	LEPTOPHLEBIIDAE	LEPTOPHLEBIA	CUPIDA	4.0	34	16	54	Hilsenhoff 1995,82
02090103	EPHEMEROPTERA	POTAMANTHIDAE	ANTHOPOTAMUS	VERTICIS	4.0	1	0	0	Hilsenhoff 1995,82
04010200	TRICHOPTERA	BRACHYCENTRIDAE	MICRASEMA	**UNIDENTIFIED**		1	1	0	Hilsenhoff 1985b
05010101	MEGALOPTERA	CORYDALIDAE	CHAULIODES	PECTINICORNIS	4.0	0	1	0	CUYLER(58)
07020501	COLEOPTERA	ELMIDAE	OPTIOSERVUS	FASTIDITUS	4.0	2	2	0	Hils., Schmude 1992
07040201	COLEOPTERA	PSEPHENIDAE	PSEPHENUS	HERRICKI	4.0	1	0	0	Hilsenhoff 1995
07050100	COLEOPTERA	DYTISCIDAE	LIODESSUS	**UNIDENTIFIED**		1	0	1	Hilsenhoff 1995
08070200	DIPTERA	EMPIDIDAE	HEMERODROMIA	**UNIDENTIFIED**	6.0	2	0	0	Hilsenhoff 1995
08110201	DIPTERA	SIMULIIDAE	SIMULIUM	AUREUM	7.0	1	1	1	Hilsenhoff 1985
08110245	DIPTERA	SIMULIIDAE	SIMULIUM	**PUPA**		1	0	0	Hilsenhoff 1985
08130100	DIPTERA	TABANIDAE	CHRYSOPS	**UNIDENTIFIED**	6.0	5	13	1	Hilsenhoff 1995
08140100	DIPTERA	TIPULIDAE	ANTOCHA	**UNIDENTIFIED**	3.0	0	1	0	Hilsenhoff 1995
08141200	DIPTERA	TIPULIDAE	TIPULA	**UNIDENTIFIED**	4.0	2	1	0	Hilsenhoff 1995

08141500	DIPTERA	TIPULIDAE	PRIONOCERA	**UNIDENTIFIED**		0	0	3	Hilsenhoff 1995
08270700	DIPTERA	TANYPODINAE	CONCHAPELOPIA	**UNIDENTIFIED**	6.0	0	0	1	Epler 2001
08273500	DIPTERA	TANYPODINAE	HAYESOMYIA	**UNIDENTIFIED**		3	0	0	Epler 2001
08300800	DIPTERA	ORTHOCLADIINAE	CORYNONEURA	**UNIDENTIFIED**	7.0	2	4	0	Epler 2001
08304901	DIPTERA	ORTHOCLADIINAE	XYLOTOPUS	PAR	2.0	1	1	0	Epler 2001
08305404	DIPTERA	ORTHOCLADIINAE	N.	SP. #5 JACOBSEN	3.0	1	0	0	Epler 2001
08310100	DIPTERA	TANYTARSINI	CLADOTANYTARSUS	**UNIDENTIFIED**	7.0	8	40	0	Epler 2001
08310800	DIPTERA	TANYTARSINI	TANYTARSUS	**UNIDENTIFIED**	6.0	1	1	0	Epler 2001
08322501	DIPTERA	CHIRONOMINI	MICROTENDIPES	PEDELLUS GROUP	6.0	1	0	2	Epler 2001
08324000	DIPTERA	CHIRONOMINI	STICTOCHIRONOMUS	**UNIDENTIFIED**	9.0	0	2	4	Epler 2001
08326203	DIPTERA	CHIRONOMINI	P. (URESIPEDILUM)	FLAVUM	5.0	4	4	0	Epler 2001
08326500	DIPTERA	CHIRONOMINI	S.	**UNIDENTIFIED**	5.0	1	0	0	Epler 2001
09010201	AMPHIPODA	GAMMARIDAE	GAMMARUS	PSEUDOLIMNAEUS	4.0	16	30	9	Holsinger 1972
10010102	ISOPODA	ASELLIDAE	CAECIDOTEA	R. RACOVITZAI	8.0	42	43	65	Williams 1972
14040200	GASTROPODA	PHYSIDAE	PHYSA	**UNIDENTIFIED**		0	0	3	Pennak 1978

Appendix E: Detailed description of GIS methods used. All procedures were performed using the Environmental Science Research Institute's ArcGIS 9.

Sample site locations were collected using both Garmin 76s and Trimble GeoXT GPS units. Points from the GeoXT were corrected for sub-meter accuracy based on the “Blue River Station” and uploaded as a .dbf file. The locations were converted to a shapefile using the “Create Theme from Table” feature in ArcCatalog. The WGS 1984 datum was assigned as a spatial reference using the “Create Spatial Reference” feature in ArcToolbox. Sample site locations were transformed to WTM 83/91 using the “Projection” tool. WTM is a hybrid projection created from UTM zones 16 and 17.

Land cover data were taken from the Wisland 1993 dataset created by the WDNR. Sections of Marathon, Portage, Shawano, and Waupaca counties containing portions of the LWR were clipped to the watershed outline and merged using the “Extract” and “Merge” tools in the Spatial Analysis toolbox. Wisland was created using supervised classification of landsat images. Supervised classification uses training areas (known land types) as a control to base other land classifications on. Wisland is formatted as a 30 meter raster with 37 land cover classes. Land cover classes were initially reclassified to 15 classes using the “Reclassify” tool in ArcToolbox. Classes such as “Maple” and “Sugar Maple” were considered unnecessary and included with “mixed deciduous.” Land cover classes were later condensed to 5 to reduce the number of variables in statistical analysis.

Land cover calculations were made at three scales per site: 1.61 km upstream by 100 meters, 1.61 km by 250 meters, and all land use upstream of each point. 1.61 km stream segments upstream from each site were traced and saved as a new layer. A spatial join was performed to assign a site number to each 1.61 km stream section. 100 and 250 meter buffers were created using ArcMaps “Create Buffer” tool. Buffers were dissolved

based on the “Site” field so each buffer polygon contained the site number it was representing. Land cover data were converted to points using the “Raster to Points” tool and clipped to buffer boundaries using the “Extract” tool in ArcToolbox. The 100 and 250 meter rasters were converted to points so they could be spatially joined with the buffer that contained them. The attribute tables for the 100 and 250 meter buffers were exported and summarized.

Land cover upstream of each sample site was summarized using ArcHydro and a “Point in Polygon” analysis. The “Point Delineation” tool was used to create a polygon representing the total drainage of each sample point and all the land use points within each drainage polygon were exported and summarized.

Hydrography data were taken from the WDNR 1:24,000 Version 5 hydrography dataset created in 2005 from USGS Digital Raster Graphs (DRG). Hydrography data were processed to be compatible with the ArcHydro extension of ArcMap. All non-stream segments were removed and the stream coverage was cleaned and built using ArcGIS. A 30 meter DEM was used to create slope, flow direction, flow accumulation layers, drainage points, flow paths, and catchment polygons.

The hydrography network created for ArcHydro was also used to calculate the cumulative stream meters above each point. Sample points were entered as nodes on the stream network by digitizing small lines perpendicular to the stream at each sample point using the ArcMap editor toolbar. The coverage was built using the “Create Coverage” tool in ArcToolbox. Network preparation was completed by creating a Geometric Network using ArcCatalog. The stream network was stored in a Geodatabase and was converted to a Geometric Network by right-clicking on it and selecting “Create

Geometric Network.” The default values were used while creating the network. Flow direction in the hydrography network was established by using the ArcHydro toolbar to “Set Flow Direction,” selecting “with digitized direction,” then “Store Flow Direction.”

The “Utility Network Analyst” was used to trace all streams upstream from a sample point. The “Options” menu was opened and the selection technique was changed from “Trace,” to “Select.” A flag was placed on a sample point and the network analyst selected all points upstream. Each selection was exported to a database to be summed and tabulated.

Appendix F: Sample Pearson correlation matrix from Little Wolf River.
Correlation coefficients range from -1 to 1. Significant correlations indicated in yellow.

		Urb100_arc	Ur250_arc	Urtot_arc	Ag100_arc	Ag250_arc	Agtot_arc	Grass100_arc
SPECIES_s	Pearson Correlation	-0.160	-0.160	0.042	-0.062	-0.121	0.155	-0.037
	Sig. (2-tailed)	0.330	0.330	0.801	0.708	0.464	0.346	0.825
SPECIES_f	Pearson Correlation	-0.155	-0.155	-0.244	-0.049	-0.096	-0.033	-0.101
	Sig. (2-tailed)	0.347	0.347	0.134	0.767	0.560	0.842	0.541
GENERA_s	Pearson Correlation	-0.164	-0.164	0.082	-0.072	-0.129	0.130	-0.072
	Sig. (2-tailed)	0.319	0.319	0.619	0.662	0.434	0.429	0.663
GENERA_f	Pearson Correlation	-0.140	-0.140	-0.226	-0.146	-0.182	-0.107	-0.111
	Sig. (2-tailed)	0.395	0.395	0.166	0.376	0.269	0.518	0.501
arc_PER_EPT_GEN_s	Pearson Correlation	-0.364(*)	-0.364(*)	-0.345(*)	0.155	0.103	0.059	0.159
	Sig. (2-tailed)	0.023	0.023	0.031	0.345	0.534	0.723	0.335
arc_PER_EPT_GEN_f	Pearson Correlation	-0.202	-0.202	0.073	0.028	-0.024	0.050	0.061
	Sig. (2-tailed)	0.218	0.218	0.659	0.868	0.883	0.764	0.714
HBI_s	Pearson Correlation	0.205	0.205	.487(**)	0.044	0.140	0.109	-0.184
	Sig. (2-tailed)	0.211	0.211	0.002	0.789	0.397	0.509	0.263
HBI_f	Pearson Correlation	0.215	0.215	0.278	0.233	.334(*)	0.234	0.013
	Sig. (2-tailed)	0.188	0.188	0.087	0.153	0.038	0.152	0.935
HBI_MAX10_s	Pearson Correlation	0.292	0.292	.406(*)	0.166	0.234	0.106	-0.358(*)
	Sig. (2-tailed)	0.072	0.072	0.010	0.311	0.151	0.519	0.025
HBI_MAX10_f	Pearson Correlation	0.246	0.246	0.305	0.204	.321(*)	0.246	-0.033
	Sig. (2-tailed)	0.131	0.131	0.059	0.212	0.046	0.132	0.844