Nebraska Stream Biological Monitoring Program 2004-2008

Technical Report

Prepared by

Ken Bazata

Surface Water Section
Water Quality Division

Nebraska Department of Environmental Quality
Lincoln, Nebraska

February 2011

Acknowledgements

This project was supported by the U.S. Environmental Protection Agency CWA Section 106 and 319 grant funds awarded to the Nebraska Department of Environmental Quality.

We wish to thank the many people that have worked on this project:

Dave Schumacher
John Lund
Pat OBrien
John Bender
Dave Bell
Ben Cunningham
Marco Floreani
Matt Glover
Steve Herdzina
Tony Koch
Wally Mason
Matt Moser
Jeromy Poell
Eric Prenosil
Lindsay Sigler
Michell Wallman
Will Myers
Greg Michl
Paul Brakhage
Chris Prachell
Derek Broman
Cay Ewoldt
Belinda Fowler
Scott Hajek
Brandon Johnson
Natalie Luben
Brian Morande
Dane Pauley
Joedy Poppe
Terrance Satchell
Jeff Stittle
Tyler Weishahn

A very special thank you goes to Dave Peck and Phil Kaufman of the Environmental Effects Research Laboratory in Corvallis, Oregon for their encouragement and help with the SAS programs.

Table of Contents

Page

List of Figures

Page

Page

Page

List of Tables

Page

Page

Introduction

The Stream Biological Monitoring Program using R-EMAP (Regional Environmental Monitoring and Assessment Program) sampling methods was first initiated in 1997 and has continued through the present program. Sampling was conducted on a five year cycle to cover the state and includes the 13 major river basins in the state of Nebraska. The first 5-year statewide report (1997-2001) was completed in 2005 (Bazata 2005). The first 5-year report was written to use and test fish and macroinvertebrate metrics that could be used to characterize the waters of the state and make beneficial use support assessments. This report represents the second 5-year statewide survey (2004-2008) of all 13 major water basins in the state and was written to verify that the faunal metrics selected to characterize the streams were correct and suitable for future studies. The data was likewise used for the beneficial use support assessments.

Methods

Sampling protocols used during the stream biological monitoring program were those established by the EPA for the R-EMAP projects (USEPA 1994; USEPA and NDEQ 1996; Kaufman et al., 1999). These protocols were developed for use in wadeable streams. Survey crews consisted of five to seven persons depending on the size of the streams.

Sampling sites

All Nebraska river basins were sampled for this report and included the Big Blue, Elkhorn, Little Blue, Loup, Lower Platte, Middle Platte, Missouri Tributaries, Nemaha, Niobrara, North Platte, Republican, South Platte, and White River-Hat Creek river basins. Random collection sites for each river basin were generated at the EPA's research lab in Corvallis, Oregon. The random sites requirements for each selection included: 1) the site was located on a perennial stream; intermittent stream sites and irrigation canals were rejected; 2) a reconnaissance visit confirmed the stream to have aquatic macroinvertebrates and fish; 3) the site was relatively accessible for sampling; and 4) the landowner gave permission to sample. Several potential sites that normally had water in previous years were dry during 2004 and 2005 due to drought. The list of sampling sites and stream characteristics for each site are shown in Tables 1 and 2. The sampling sites were spread throughout all seven of Omernik's ecoregions (Figure 1).

Field measurements and stream discharge measurements

Field water quality measurements were collected prior to disturbance of the area by the sampling team. Water quality parameters measured at the site included: temperature, pH, dissolved oxygen, turbidity, conductivity, and stream discharge. These measurements were taken with a HydroLab Quanta or Eureka Manta multi-parameter meters. Stream discharge was calculated from measurements of depth and velocity with a wading rod and a Marsh-McBirney flow meter at the best possible transect within the study reach.

Physical and habitat measurements

The average width of the stream was determined and was used to calculate the total length of the study reach using the equation of 40 times the average width. A minimum study reach of 150 meters was used for small streams and a maximum reach of 300 meters was used for larger streams with an average width of greater than seven meters. Physical habitat was measured in the sample reach at 11 evenly spaced cross-sectional transects and at 100 points along the thalweg following the EPA EMAP protocol (Kaufmann and Robison 1998). At each transect, depth, substrate size class, and substrate embeddedness were measured at five equally spaced points across the stream between the wetted edges. At both sides of the stream, the angle of the stream bank relative to the water surface, distance from the water surface to bank full height, stream incision depth, bank full width, and amount of overhang by undercut banks were

measured. Canopy cover was measured at the sides and centers of transects. The amounts of fish cover in nine categories (filamentous algae, macrophytes, woody debris, brush, overhanging vegetation, undercut banks, boulders, artificial structures) were visually estimated. Riparian vegetation cover was assessed by visually estimating the amount of canopy (> 5 m high), understory (0.5-5 m), and ground cover (< 0.5 m) on both banks at transect locations. The presence or absence and proximity of human disturbance (row crops, grazing, buildings, roads, etc.) was visually assessed at each transect. Thalweg measurements included depth, presence of fine substrate (< 16 mm diameter), habitat unit type (pool, riffle, run, dry channel), and presence of side channels and backwaters. A visual Rapid Habitat Assessment (Lazorchak et al. 1998) based on 12 habitat parameters (instream fish cover, epifaunal substrate, pool substrate characterization, pool variability, channel alteration, sediment deposition, channel flow status, bank condition, bank vegetative protection, grazing or disruptive pressure, and riparian vegetated zone width) was also completed for each sample reach. The azimuth of each transect was also measured.

Fish collections

Fish samples were collected at each sampling location. Sampling gear was dependent on stream size and habitat complexity. A backpack shocker was used for small and medium sized streams (flows less than 10 cfs (Table 3)). Larger, deeper streams were electroshocked utilizing a portable generator transported in a tote barge. Block nets were used downstream on smaller streams when fish collection was hampered by turbidity or other factors. Stunned fish were netted and placed in buckets containing ambient water for holding and recovery. The length of stream ranged from 150 to 300 meters. Seining was conducted with a 30-foot long ¼ inch mesh bag seine. The number of seining attempts was determined by the complexity and size of the stream. Both methods were used to cover the biases the other sampling method has toward particular sizes and species of fish. Large fish were identified in the field and released. Small fish were either identified in the field or were sent to Dr. Mark Eberle at the Sternberg Museum of Natural History, Fort Hays University, Hays, Kansas. Total numbers were derived for all samples.

Macroinvertebrate collections

Aquatic macroinvertebrates were collected at each site using a number of sampling methods and were combined for assessment. The different sampling methods were done to account for the different types of communities and habitats found in each stream. Overhanging vegetation samples were collected from the stream edge in the grasses bent into the water. The samples were collected by sweeping a D-net (500µm Nitex net, 12 inch wide base) in an upward vertical motion through the overhanging vegetation. The total sample consisted of 18 vertical lifts and had a surface area of 1.67 m^2. If habitat was limited, fewer sweeps were made, but were noted on the field sheet. Pool substrate was sampled by dragging a D-net through the substrate in a pool area with a silt bottom for a length of one foot and one inch deep. The total sample consisted of 18 drags and had a surface area of 1.67 m^2. Riffles were sampled using a Surber Stream Bottom Sampler (12 inch X 12 inch opening). A riffle area was defined as an area of relatively shallow water with an accelerated velocity where the water surface is rough or broken. The riffle substrate consisted of gravel or larger stones. Six samples were taken from each riffle and were made by agitating the contents of the substrate to allow the contained and attached organisms to be washed downstream into the Surber net (500 µm Nitex). Surface area was 0.56 m^2. Qualitative samples were taken to include all other habitats not collected with quantitative methods. Habitats included woody debris, log jams, larger rocks, submergent and emergent vegetation. An effort of 15 to 20 minutes for one person was made to sample these additional habitats.

In the field, individual samples were placed in a No. 30 mesh sieve or wash bucket (595 µm openings) and washed to remove mud and small debris. Large debris was also removed by hand. Collections from each habitat were placed in plastic jars and preserved in 70 percent

ethanol. The samples were sent to Mike McBride at Ripple Environmental, Inc. for sorting and identification.

Identifications of all organisms were made to the lowest possible taxon using taxonomic keys and literature. Organisms were enumerated per taxa for each sample. Subsampling was not required for most samples but was conducted when taxa numbers were high. This procedure was done by recovering a percent volume of the sample with use of a grid placed underneath the sorting pan. The unanalyzed portion of the subsample was quickly scanned for unusual or unexpected organisms. The remaining portion of the sample was represerved and retained. Final counts were extrapolated to account for 100 percent of the sample.

Several representatives of each taxon of macroinvertebrates were saved for a project reference collection. The specimens were placed in vials, preserved in 70% ethanol, labeled and saved for future reference and comparisons.

All macroinvertebrates were brought to the same taxonomic level for assessment purposes of the project. If identification was made to a lower than required level, the identification was changed to the next higher level. For example, if an invertebrate was identified to the species level and the other identifications were to the genus level as needed for analysis, the identification was changed to the genus level. However, the species level was recorded in Ecological Data Application System (EDAS) and STORET.

Metrics

The measurement of overall fish, macroinvertebrate, and habitat community condition present in this report were determined using the Index of Biotic Integrity (IBI), the Invertebrate Community Index (ICI), and Nebraska Habitat Index (NHI). The indices used for the fish, macroinvertebrates, and habitats are modifications of the Index of Biotic Integrity (IBI) as developed by Karr (1981) and modified by Fausch et al. (1984), Karr et al. (1986), Ohio EPA (1987), Plafkin et al. (1989), Barber et al. (1999). The fish IBI metrics used in this study were developed by the EPA Research Laboratory in Corvallis, Oregon and were selected from a list of metrics to best show responsiveness to disturbance, either natural or anthropogenic. The macroinvertebrate ICI consists of four community metrics and were modifications of the invertebrate indices of the Ohio EPA (1987), Herger and Hayslip (2000), and Wilton (2004). The habitat NHI consisted of ten metrics and was selected from a list of metrics to best portray an interaction of habitat and biotic ranges.

The metrics used to evaluate the fish, macroinvertebrate and habitat are discussed in the Nebraska Stream Classification report (Bazata, 2005). In general, relative abundances, rather than absolute abundances, were used for these metrics because the relative contribution of individuals to the total fauna or habitat is more informative than abundance data on populations without knowledge of the interaction among taxa and habitats (Plafkin et al. 1989, Barbour et al. 1999). The premise is that a healthy and stable assemblage will be relatively consistent in its proportional representation, though individual abundances may vary in magnitude.

Fish Index of Biotic Integrity Metrics (IBI)

The follow metrics are used for the Fish Index of Biotic Integrity (IBI8):

Metric 1. Total number of native species (numnatsp)
Metric 2. Total number of native families (numnatfm)
Metric 3. Total number of sensitive species (nssen)
Metric 4. Proportion of tolerant species in sample (ptole)

Metric 5. Total number of benthic species (nsnbenth)
Metric 6. Total number of long-lived species (nslunk)
Metric 7. Proportion of alien species in the sample (pintro)
Metric 8. Proportion of sample carnivore species (pncarn)

Invertebrate Community Index Metrics (ICI)

The following metrics are used for the Invertebrate Community Index (Bugsc):

Metric 1. Total number of invertebrate taxa (TotalTax)
Metric 2. EPT taxa richness (EPTTax)
Metric 3. Modified Hilsenhoff Biotic Index (HBI)
Metric 4. Percent contribution of dominant taxon (Domn01Pct)

Nebraska Habitat Index Metrics (NHI)

The following metrics are used for the Habitat Index (Habscore5):

Metric 1. Incision/width ratio (Inciswid)
Metric 2. Percent sand substrate (Pct_sa)
Metric 3. Percent rowcrop (w1h_crop)
Metric 4. Percent riffle (Pct_ri)
Metric 5. Percent undercut banks (xfc_ucb)
Metric 6. Percent overhanging vegetation (pfc_ohc)
Metric 7. Percent silt substrate (Pct_fn)
Metric 8. Middle canopy layer along stream bank (xcm)
Metric 9. Percent pools (Pct_pl)
Metric 10. Percent barren banks (xgb)

In order to compare the 2004-2008 sample sites with previous data, a set of reference scores for each metric and total index score and ecoregion and stream type was calculated from the Nebraska Stream Classification report (Bazata 2005). The ratio between the score for the test station and the score for the reference condition provides a percent comparability measure for each station (Figure 2). The station of interest is then classified on the basis of its similarity to expected conditions (reference conditions), and its apparent potential to support an acceptable level of biological health. The sampling sites and reference condition sites were sorted by ecoregion and stream type.

Data analysis and results

There were a total of 205 stream sites surveyed during the 2004-2008 Stream Biological Monitoring Project (Table 1, Figure 1). Sites were located across the state in all 13 major river basins, all seven ecoregions and 73 counties (Tables 1 and 2, Figure 1). Most streams surveyed (83%) were first through third order streams. The streams were divided up as 25% cold water and 75% warm water streams and all stream conditions are represented (Table 3).

In the 2005 report on Nebraska streams (Bazata 2005), all ecoregions were shown to be valid divisions using Duncan's ANOVA test on the individual metrics, individual metric scores and total metric scores for fish macroinvertebrates, and habitat. However, a better fit appeared when Ecoregion 27 (Central Plain Ecoregion) was subdivided into eastern and western units using Ecorgion IV subdivisions (see Figure 1). The eastern ecoregion 27 (renamed Ecoregion 271) consisted of subecoregion 27a (Smokey Hills) and 27f (Rainwater Basin Plains) and has fauna and habiat similar to Ecoregion 47 (Western Corn BeltPlains). The western Ecorgion 27 consisted of subecoregions 27b (Rolling Plains and Breaks), 27e (Central Nebraska Loess Plains) and 27g (Platte River Valley and was more similar to Ecoregion 25 (Western High Plains).

Fish

A total of 50 fish species were collected during the 2004-2008 sampling (Table 4). Fish species collected within each family consisted of two Lepisosteidae (Gar), one Clupeidae (Herrings), two Salmonidae (Trouts), two Esocidae (Pikes), 13 Cyprinidae (Minnow), six Catostomidae (Sucker), four Ictaluridae (Catfish), three Cyprinodontidae (Killifishes), one Poeciliidae (Livebearers), one Atherinopsidae (Silversides), one Gasterosteidae (Sticklebacks), two Moronidae (Temperate Bass), seven Centrarchidae (Sunfish), five Percidae (Perch), and one Sciaenidae (Drum) (Table 5). Six state sensitive species were collected (Orangethroat Darter, Brook Stickleback, Johnny Darter, Grass Pickerel, Iowa Darter, and Blacknose Dace) and two threatened species were collected (Finescale Dace and Northern Redbelly Dace). The most commonly collected fish were the Red Shiner (22% of the fish total numbers), Sand Shiner (22%), Fathead Minnow (10%) and Bigmouth Shiner (10%). The other 46 species were collected in less than nine percent of the time from the sampling locations. Ten recreationally important species were collected from the streams (Brook Trout, Northern Pike, Channel Catfish, Largemouth Bass, Bluegill, Black Crappie, White Crappie, Yellow Perch, and Walleye). The most abundant fish were similar to the 1997-2001 report.

Species richness per collection ranged from 1 to 25 (Tables 6, 7, and 8). The highest number of species richness (25) was found at the Elkhorn River near Stanton in Stanton County. Only one species of fish was collected at three sites: Spring Creek near Cozad in Dawson County, Long Creek near Blair in Washington County, and West Ash Creek near Crawford in Dawes County. Spring Creek is a small headwater stream that only produced five Fathead Minnows, although several larval fish were seen going through the net during sampling. Long Creek had only one Black Bullhead collected. This was due to a drop-structure located at the road culvert below the collection site and a neighbor reported that the stream's fish population was killed with rotenone after the local Natural Resources District built a small dam and pond about two miles below the sampling site. West Ash Creek is a small headwater stream in the upper foothills of the butte region of Dawes County and only Brook Trout were collected.

Statewide IBI scores ranged from 17 to 92 (Tables 6, 7, 8, Figures 3 through 11). The median IBI score for the collection sites was 58.6 and is slightly higher than the 1997-2001 REMAP study averages where the IBI scores were 56.9 for randomly selected streams and 61.1 for reference streams. Ecoregion 27 (1) had a median IBI score of 58.6 and Ecoregion 47 had a median IBI score of 47.3. The other ecoregions of the state produced higher or better IBI scores (67.7 in Ecoregion 25, 69.1 in Ecoregion 42, 72.0 in Ecoregion 43, and 64.2 in Ecoregion 44). There were significant differences between ecoregions for IBI scores. The differences were primarily attributed to the differences in scores between the eastern ecoregions (Ecoregions 27, 271, and 47) and the western ecoregions (Ecoregions 43, 42, 44, and 25) (Table 9).

Macroinvertebrates

All ICI scoring is based on combined macroinvertebrate sampling. Because the streams of the state are not uniform in regards to substrate and habitat types, different methods were used to sample the various habitat types (overhanging vegetation, pool and bottom substrates, riffles and qualitative). These samples were combined by station and then evaluated. A total of 362 taxa were collected from 2004-2008 (Table10). Species richness per collection varied from 60 in the Nemaha Basin at Four Mile Creek and Whiskey Run both near Humboldt in Richardson County to only one collected in the Elkhorn River near Inman in Holt County and seven collected in Mira Creek near the town of North Loup in Valley County (Table 11 and 12). The very low taxa numbers at the last two sites were unusual and could be attributed to very low water due to drought conditions in the Elkhorn River and heavy silt inundations in Mira Creek.

The most abundant taxa collected included the mayflies *Fallceon* and *Tricorythodes*, the caddis fly, *Cheumatopsyche*, the amphipod, *Hyalella azteca*, the midge *Polypedilum convictum*, and the black flies (Simuliidae) and make up 33.3% of macroinvertebrates collected. Other numerous organisms, although not as abundant (approximately 21% combined), were the caddis fly, *Hydropsyche simulans*, the snail, *Physa*, the mayflies, *Caenis* and *Baetis*, and the midges, *Rheotanytarus*, *Tanytarsus*, and *Chironmus*.

ICI scores ranged from 4 to 24 (Tables 12 and 13, Figures 12 to 16). The median ICI score for the 13 river basins was 14. The highest ICI score (24) was calculated for Whiskey Run in the Nemaha Basin near Humboldt in Richardson County and Gering Drain in the North Platte Basin near Scotts Bluff in Morrill County. The lowest ICI scores (4) were found at Lores Branch near Pawnee City in Pawnee County, West Fork of the Big Blue River near McCool Junction in York County, Spring Creek near Hebron in Thayer County, Oak Creek near Ashton in Sherman County, Shell Creek near Lindsay in Platte County, Lime Creek near Maskel in Dixon County, and Lodgepole Creek near Potter in Cheyenne County. The possible explanations for the low ICI scores are varied depending on the location and the year collected. Low water due to drought conditions was the most likely explanation for finding few invertebrates at one site of Lodgepole Creek (SP2046) and Lores Branch (NE2185). The complete opposite of very high spring and early summer flows prevented the invertebrate fauna from getting established due to scouring effects at West Fork of the Big Blue River (BB3136) and Spring Creek (LB2129). No habitat except for a silt bottom was the most likely explanation for finding few invertebrates at Shell Creek (LP1172) and seasonal paucity of early fall sampling may account for the low numbers at Lime Creek (MT2161) and Oak Creek (LO3193). Also, some streams, such as Lime Creek (MT2161), are headwater streams and low numbers of macroinvertebrates are expected as shown in river continuum studies, even though even though the instream habitat is excellent (Vannote et al. 1980). No significant differences were found for the ICI scores across the ecoregions for the state (Table 9).

Physical Habitat

The Nebraska Habitat Index (NHI) (Bazata 2005) scores ranged from 22 to 56 (Table 14, Figures 17 to 27). The median score for the state was 36 and is higher than the median score of 32 for randomly selected streams in the 1997-2001 statewide stream survey report (Bazata 2005). The Niobrara River near Merriman in Cherry County (Sandhill ecoregion) had the highest score of 56 and the Minnechaduza Creek near Valentine in Cherry County had a score of 54. Two sites both in the Western Corn Belt Plains ecoregion had the lowest score of 22: Wahoo Creek near Ithaca in Saunders County and North Fork of the Big Nemaha River near Tecumseh in Johnson County.

The NHI scores varied with each of the ecoregions, but, in general, the median scores were between 32 and 36 for the Western Corn Belt Plains (ecoregion 47), the Eastern Central Great Plains (ecoregion 271) and the western Central Great Plains (ecoregion 27) ecoregions (Table 14, Figures 17 to 27). The habitat median scores were between 40 and 47 for the western ecoregions of Western High Plains (ecoregion 25), Northwest Glaciated Plains (ecoregion 42), Northwest Great Plains (ecoregion 43), and Nebraska Sand Hills (ecoregion 44). The difference in habitat scores between ecoregions is primarily related to general land use (row cropped vs. rangeland and pasture), stream substrate (silt vs. sand), barren banks (barren vs. vegetated), and incision/width ratios (Table 15).

Field Parameters/Chemistry

Data from the six field variables were collected from 205 sites. Summary statistics from the field parameters are shown in Table 16 and Figure 28 to 33. Water quality standards cannot be strictly applied to these samples because only a single sample was taken and not a multiple set over time. Therefore, these values were not on used for 303d assessments. Only three significant differences (conductivity, dissolved oxygen, and temperature) were found between

ecoregional means for the field variables (Table 17). No consistent explanation could be found for these differences between ecoregions.

The conductivity of the samples varied from 126 µmho/cm to 1756 µmho/cm. No collection sites were measure above the state standard of 2000 µmho/cm. Ecoregions 42, 43, and 44 were found to be significantly higher from the remaining ecoregions (25, 47, 271, and 27)(Table 17). This difference is probably due to source of the water for the streams. The water in the streams of the Sandhills (ecoregion 44), NW Glaciated (ecoregion 42), and NW Great Plains (ecoregion 43) typically consist of more groundwater contributions than the other ecoregions of the state. Groundwater is more mineralized and has a higher specific conductance.

Dissolved oxygen (DO) concentrations are generally related to turbulence and temperature. Decreased DO levels are usually associated with inputs of organic matter, sedimentation, as well as increased temperature and reduced stream flow (Herger and Hayslip 2000). Conclusions must be drawn with caution, as DO is temporally variable and a single measurement is of questionable value for characterizing stream condition. DO ranged from 1.6 mg/l to 13.3 mg/l. DO measurements were below the water quality standard of 5 mg/l for a 1-day minimum at seven sites: Bell Creek Craig in Burt County, Union Creek near Madison in Madison County, Battle Creek near Battle Creek in Madison County, Wahoo Creek near Weston in Saunders County, South Branch of Papillion Creek near Gretna in Sarpy County, Flag Creek near Orleans in Harlan County, and Muddy Creek near Eustis in Frontier County.

The pH of the 13 river basins ranged from 7.12 to 8.72. No value was shown below or above the standard of 6.5 to 9.

Stream discharge varied between 0.04 cfs to 855 cfs. Stream discharge during 2004 through 2005 was impeded by drought conditions and the flow for all of the streams was affected by the lack of rainfall. The Nemaha and upper Elkhorn Basins were most affected during our collections with several of the streams having greatly reduced flows during collection. The low flows most likely affected the fauna of the streams because the instream habitats were greatly reduced. Stream discharge for the years 2006 through 2008 were at normal levels with periods of high flows in the Big and Little Blue basins during the spring and early summer of 2007. The high water levels produced scoured stream beds and substrates also affecting the instream habitat.

Turbidities ranged from 0.3 NTU to 724 NTU with a median of 26.3 NTU. The majority (75%) of the samples were below 59 NTU. Ecoregions 42, 43, and 44 had the lowest turbidities (Figure 31, Table 16); however, there was not a significant difference between all seven ecoregions (Table 17). Nebraska does not have a turbidity criteria in it's water quality standards.

For temperature, a single value from a stream is of limited value, as with dissolved oxygen, because temperature is temporal and variable throughout the day. Temperatures ranged from 4.01°C to 34.3°C during the 2004-2008 sampling. The standard limit is 32.0°C and the following sites were above the standard: Spring Creek near Hebron in Thayer County, Prairie Creek near Fullerton in Merrick County, and Sappa Creek near Orleans in Harlan County. All three streams were pooled and relatively shallow with very low flows. Solar radiation is the most likely explanation for the higher temperatures as no point discharges were nearby.

Stream Classification

The data from the 205 stations were grouped into their respective data type (fish, macroinvertebrate, or habitat), ecoregion, stream size, cold-water stream, and warm water stream. Stream size was divided into the groups of small (<1 cfs), medium (1-10 cfs), large (10-100 cfs) and river (>100 cfs) Table 3. Since previous studies (Bazata 2005) have shown that metric values and stream rating differ between ecoregions, it was necessary to have the classification scheme reflect this difference between ecoregions. Summary statistics (i.e., mean, median, 25^{th} percentile, 75^{th} percentile, and maximum) within each group were calculated for the

IBI fish scores, ICI macroinvertebrate scores, and NHI habitat scores (Table 18) and compared to the reference streams in the 1997-2005 studies. Figure 2 shows an example of the rating system. If a random site scored at the 75th percentile or highter of the reference sites it was given an excellent rating, if it scored between zero percentile to the 74th percentile of the reference sites, it was given a good rating. Below the reference site level, a random site was given a fair rating if it fell between the 25th percentile and the median of the random sites. The scores below the 25th percentile of the random sites were given a poor rating.

The IBI and ICI were the only indices used to give a final rating to the streams. The habitat index still needs further evaluation and review before it can be incorporated for stream ratings. When looking at individual indices, IBI fish scores consisted of 75 excellent, 80 good, 20 fair, and 29 poor stream ratings and ICI macroinvertebrate scores had 18 excellent, 102 good, 53 fair, and 30 poor stream ratings (Table 18). For the overall stream rating in this report, only the lowest ratings of either the IBI (IBIuse) and ICI (ICIuse) scores were used (Table 18). Using these criteria for the overall rating, there were 9 excellent, 87 good, 50 fair, and 57 poor stream ratings. Distribution maps of these stream ratings and aquatic life use support are shown in Figures 34 through 37.

The full support stream ratings for the aquatic life use support for the Integrated Report will include everything with a fair, good, or excellent overall rating. The poor overall stream ratings were established as the nonsupport use designations for the aquatic life use support, and therefore should be added to the Integrated Report 303d state list for nonsupport streams; however, in extreme conditions exceptions are made to adding sites to the 303d listings.These extreme conditions include low water, drought, floods, and heavy scouring. The high incidence of poor ratings in 2005 and 2006 were most likely due to the drought conditions and water levels were extremely low in the Nemaha and upper Elkhorn River Basins. The low water level reduced stream water levels and habitat and faunal counts were likewise reduced. Many streams were reduced to a trickle when compared to the “normal” summer flows. The complete opposite occurred in 2007 when heavy and frequent rains were common in the Little Blue and Big Blue River basins during the spring and early summer. High water and flooding scoured many streams of these basins of habitat and fauna, so the numbers were similarly low. Similarly, a few sandhill streams were not included in the 303d listing because the fauna is naturally low due to shifting sand substrates and no habitat can be established for the fauna to grow (Appendix D, NDEQ 2011).

Conclusions

As in the 1997-2005 R-EMAP study, both the fish and macroinvertebrates reflect water and habitat quality of streams in Nebraska. The data values were all within the ranges established in previous studies. Ecoregional differences in fish, macroinvertebrate, habitat and field chemistry were also noted in this set of sampling and were also within the range established previously.

In some cases, as shown in several evaluations above, biological data may indicate that aquatic life use in streams is impaired but only by non-pollutant causes, such as limited streamside or littoral vegetative cover, fish passage barriers, low flow conditions, flooding, shifting sand substrate, or other flow regime alterations. In these cases an examination of the habitat data and other pertinent data, such as stream flows, water chemistry, degree of impairment, elimination of riparian vegetation, sedimentation, and other watershed information, needs to be considered in the final assessment, especially for the integrated report. Causes and sources of impairment for streams assessed need to follow U.S. EPA guidelines and best professional judgment. The information reviewed also needs to include floodplain land uses, buffer strip widths and vegetation, channel sinuosity and morphometry, bank conditions, sediment composition, stream flow and instream habitat.

It is recommended that there be a reevaluation of metrics used in ratings of certain stream types within the state, mainly headwater streams located in the sandhills and northeast section of the state. Headwater and some sandhill streams normally have a few fish and macroinvertebrates and more "pioneer species" are present. Pioneer species are those species that initially colonize an area or head water stream. The EPTs used in the macroinvertebrate metrics and the fish pioneer species have very low numbers in these streams. If only pioneer species are used in the stream evaluation, it would suggest an impairment, even though instream or bank habitat, other stream conditions, and lack of pollution would indicate a healthy system. Other metrics need to be considered to see if they are better able to evaluate this anomoaly. In some of the sandhill streams, shifting sand reduces the ability of macroinvertebrates and fish to colonize the system thus giving unusually low numbers of fish or macroinvertebrate species present.

Summary

1. A total of 205 stream sites were surveyed across the state in all river basins, all seven ecoregions and in 73 counties.

2. 83% of the samples were 1st through 3rd order streams.

3. 25% were cold water and 75% were warm water streams

4. 52 fish species were collected. Most commonly collected fish were the Red Shiner (22% of the total fish numbers), Sand Shiner (22%), Fathead Minnow (10%), and Bigmouth Shiner (10%). Two threatened fish species were collected: Finescale Dace and Northern Redbelly Dace.

5. The streams from the western two thirds of state averaged more fish and better stream evaluations per stream than eastern one third of state.

6. 362 taxa of macroinvertebrates were collected. Number of species per site varied from 60 to only one in the upper Elkhorn River taken during 2005 when the river was extremely low and warm due to drought conditions. Two Mayflies species (*Fallceon* and *Tricorythodes*), one caddis fly species (*Cheumatopsyche*), one amphipod (*Hyalella azteca*), and one midge (*Polypedilium*) were the most commonly collected across the state.

7. Fewer insect species were collected in 2005 due to low water from drought. However, completely the opposite happened during 2007 with fewer species collected due to flooding and scouring conditions in the Big and Little Blue Rivers in the spring and early summer.

8. Habitat index scores were lower in the eastern one third of the state mainly due to more cropland than in the west. More rangeland and pastures are found in the western two thirds of the state and habitat index scores are higher. The Niobrara River near Merriman and the Minnechaduza Creek near Valentine had the highest habitat scores for the state

9. Fish IBI scores were calculated from eight metrics with a median IBI score of 56. Ecoregion 47 had the lowest median IBI score of 47.3 and ecoregion 27 had a median score of 58.6. The other ecoregions of the state had significantly higher median IBI scores (67.7 in ecoregion 25, 69.1 in ecoregion 42, 72.0 in ecoregion 43, and 64.2 in ecoregion 44).

10. Macroinvertebrate ICI scores were calculated from four metrics with a median ICI score of 14. A slight variation of this score occurred between ecoregions and varied from a score of 12 in ecoregions 27 and 271 and a score of 16 in ecoregion 25.

11. The habitat HBI index consisted of ten metrics and had a median score of 36. The ecoregions varied from a score of 32 in ecoregion 271 and a score of 47 in ecoregion 43. The

1997-2001 R-EMAP survey averaged a score of 32 for ramdomly selected perennial streams and a score of 46 for reference streams.

12. Field parameters consisted of conductivity, dissolved oxygen, pH, stream discharge, turbidity, and water temperature. All values were within the ranges of those recorded during previous studies. The conductivity was found to be significantly different in the western half of the state compared to the eastern half and most likely is attributed to groundwater contribution to streams. The dissolved oxygen water quality criterion level of 5 mg/l for a one day minimum was not met at seven sites. The pH criterion of 6.5 to 9 was met at all sites. However, the DO and pH readings were measured on only one occasion at each site and probably do not represent typical readings for the streams. The stream flow during the 2004-2005 was affected by the lack of rainfall and other drought conditions, whereas the spring and early summer rains caused flooding and high water levels in 2007. The lowest turbidities were found in the western ecoregions of the state and the eastern ecoregions produced the highest turbidities. The temperature criterion of 32° C was exceeded at three sites. Solar radiation on pooled and low flow streams were the most likely explanation for these exceedances.

13. The IBI and ICI were the only indices used for stream classifications. The evaluations are based on reference site criteria from the 1997-2001 R-EMAP study. Using these criteria for the overall rating, there were nine excellent, 87 good, 50 fair, and 57 poor stream ratings. However, several poor rating streams were not put on the 303d list because of natural circumstance (i.e., drought, flooding, etc.) resulting in habitat loss and, thus, producing poor faunal numbers. These low fauna numbers give a poor index score..

14. Some reevaluation of stream ratings needs to be conducted for extreme weather or water conditions, such as flooding or drought. Headwater stream metrics and some sandhill ecoregions metrics also need to be reevaluated for natural conditions of low faunal numbers.

References

Barbour, M.T., J. Gerritsen, B.D. Snyder, J.B. Stribling. 1999. Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish. Second Ed., U.S. Environmental Protection Agency, Office of Water, EPA 841-B-99-002.

Bazata, K. 2005. Nebraska Stream Classification Using Fish, Macroinvertebrates, Habitat, And Chemistry Evaluations From R-EMAP Data, 1997-2001. Nebraska Department of Environmental Quality. Lincoln, Nebraska.

Fausch, D.D., J.R. Karr, and P.R. Yant. 1984. Regional application of an index of biotic integrity based on stream fish communities. Trans. Am. Fish. Soc. 113:39-55.

Herger, L.G. and G. Hayslip. 2000. Ecological conditions of streams in the Coast Range ecoregion of Oregon and Washington. EPA-910-R-00-02. U.S. Environmental Protection Agency, Region 10, Seattle, Washington.

Karr, J.R., K.D. Fausch, P.L. Angermeier, P.R. Yant, and I.J. Schlosser. 1986. Assessing Biological Integrity in Running Water: A Method and Its Rationale. Special Publication 5. Illinois Natural History Survey. 28pp.

Kaufmann, P.R. and E.G. Robison. 1998. Physical Habitat Characterization. Pp 77-118 In: J.M. Lazorchak, D.J. Klemm, and D.J. Peck (eds.). Environmental Monitoring and Assessment Program—Surface Water: Field Operations and Methods for Measuring the Ecological Condition of Wadeable Streams. EPA/620/R-94/004F. U.S. Environmental Protection Agency, Office of Research and Development, Washington, D.C.

Kaufmann, P.R., P. Levine, E.G. Robinson, C. Seeliger, and D.V. Peck. 1999. Quantifying physical habitat in wadeable streams, EPA 620/R-99/003. Environmental Monitoring and Assessment Program, U.S. Environmental Protection Agency, Corvallis, OR.

Larzorchak, J.M., D.J. Klemm and D.V. Peck (editiors). 1998. Environmental Monitoring and Assessment Program—Surface Waters: Field Operations and Methods for Measuring Ecological Condition of Wadeable Streams. U.S. Environmental Protection Agency, Washington, D.C., EPA/620/R-94/004F.

NDEQ 2011. 2010 Water Quality Integrated Report. Nebraska Department of Environmental Quatlity. Water Quality Division. January, 2011.

Ohio Environmental Protection Agency. 1987. Biological Criteria for the Protection of Aquatic Life Volume I: The role of biological data in water quality assessment. Revision 1988. Volume II: User's Manual for Biological Assessment of Ohio Surface Waters. Revision 1988. Volume III: Standard biological field sampling and laboratory methods for assessing fish and macroinvertebrate communities. Revision 1989. Ohio Environmental Protection Agency, Columbus, Ohio.

Plafkin, J.L., M.T. Barbour, K.D. Porter, S.K. Gross, and R. M. Hughes. 1989. Rapid Bioassessment Protocols For Use in Streams and Rivers: Benthic Macroinvertebrates and Fish. USEPA, Assessment and Watershed Protection Division, Washington, D.C. EPA/444/4-89-011.

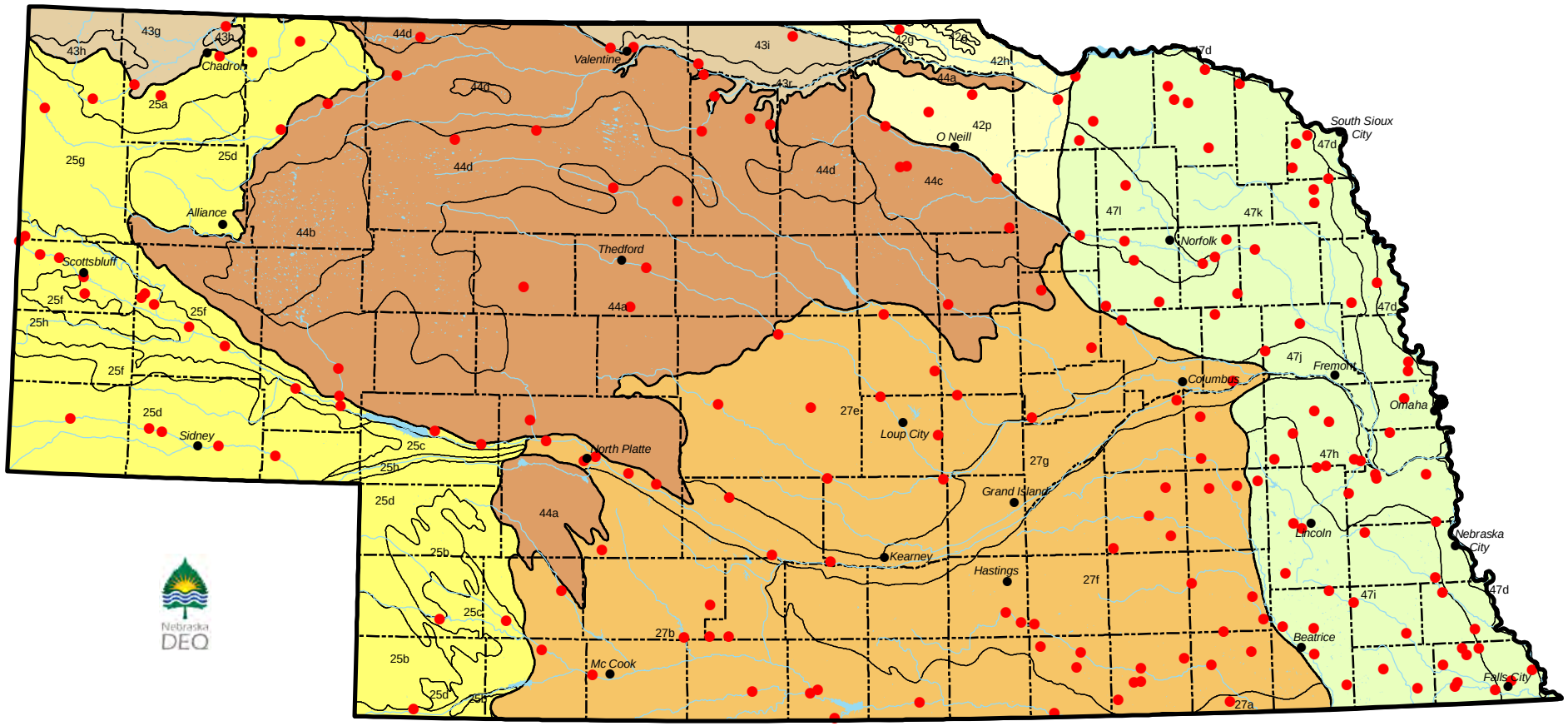
U.S. EPA 1994. Quality Assurance Project Plan For Measuring The Health Of The Fisheries In EPA Region VII (R-EMAP) Study. Revised Feb. 1994. U.S. Environmental Protection Agency, Region VII, Kansas City, Kansas.

U.S. EPA and NDEQ (Nebraska Department of Environmental Quality). 1996. "Implementing Probability-Based Monitoring Design Within Nebraska's Rotating Basin Assessment Plan." July 1996. 119 pp.

Vannote, R.L, G.W. Minshall, K.W. Cummings, J.R. Sedell, and C.E. Cushing. 1980. The river continuum concept. Can. J. Fish. Aquat. Sci 37:103-137.

Wilton, T. 2004. Biological Assessment of Iowa's Wadeable Streams. Iowa Department of Natural Resources, Environmental Services Division, Des Moines, Iowa.

Figure 1. Sampling Sites And Ecoregions For The Nebraska Ambient Biological Program, 2004-2008



June 2010

Nebraska Ecoregions

25 - Western High Plains
- 25a - Pine Ridge Escarpment
- 25b - Rolling Sand Plains
- 25c - Moderate Relief Rangeland
- 25d - Flat to Rolling Cropland
- 25f - Scotts Bluff and Wildcat Hills
- 25g - Sandy and Silty Tablelands
- 25h - North and South Platte Valley and Terraces

27 - Central Great Plains
- 27a - Smoky Hills
- 27b - Rolling Hills and Breaks
- 27e - Central Nebraska Loess Plains
- 27f - Rainwater Basin Plains
- 27g - Platte River Valley

42 - Northwestern Glaciated Plains
- 42g - Ponca Plains
- 42h - Southern River Breaks
- 42p - Holt Tablelands

43 - Northwestern Great Plains
- 43g - Semiarid Pierre Shale Plains
- 43h - White River Badlands
- 43i - Keya Paha Tablelands
- 43r - Niobrara River Breaks

44 - Nebraska Sand Hills
- 44a - Sand Hills
- 44b - Alkaline Lakes Area
- 44c - Wet Meadow and Marsh Plains
- 44d - Lakes Area

47 - Western Corn Belt Plains
- 47d - Missouri Alluvial Plain
- 47h - Nebraska/Kansas Loess Hills
- 47i - Loess and Glacial Drift Hills
- 47k - Northeastern Nebraska Loess Hills
- 47l - Transitional Sandy Plain

Figure 2. Example Of Box Plots Used In Rating A Stream And How To Compare The Stream Data With Reference Data.

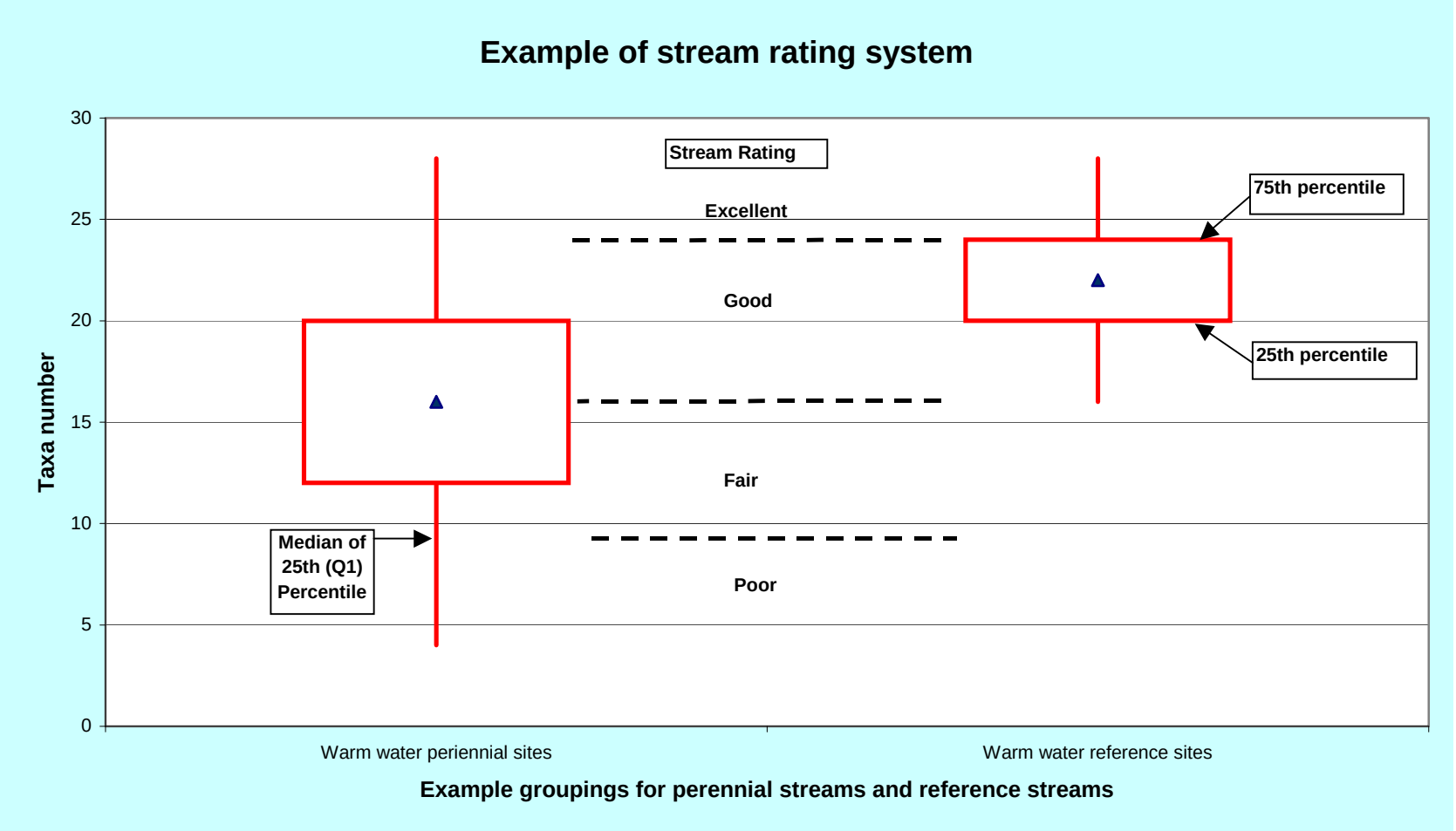


Figure 3. Distribution Of Fish Biotic Index (IBI) For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

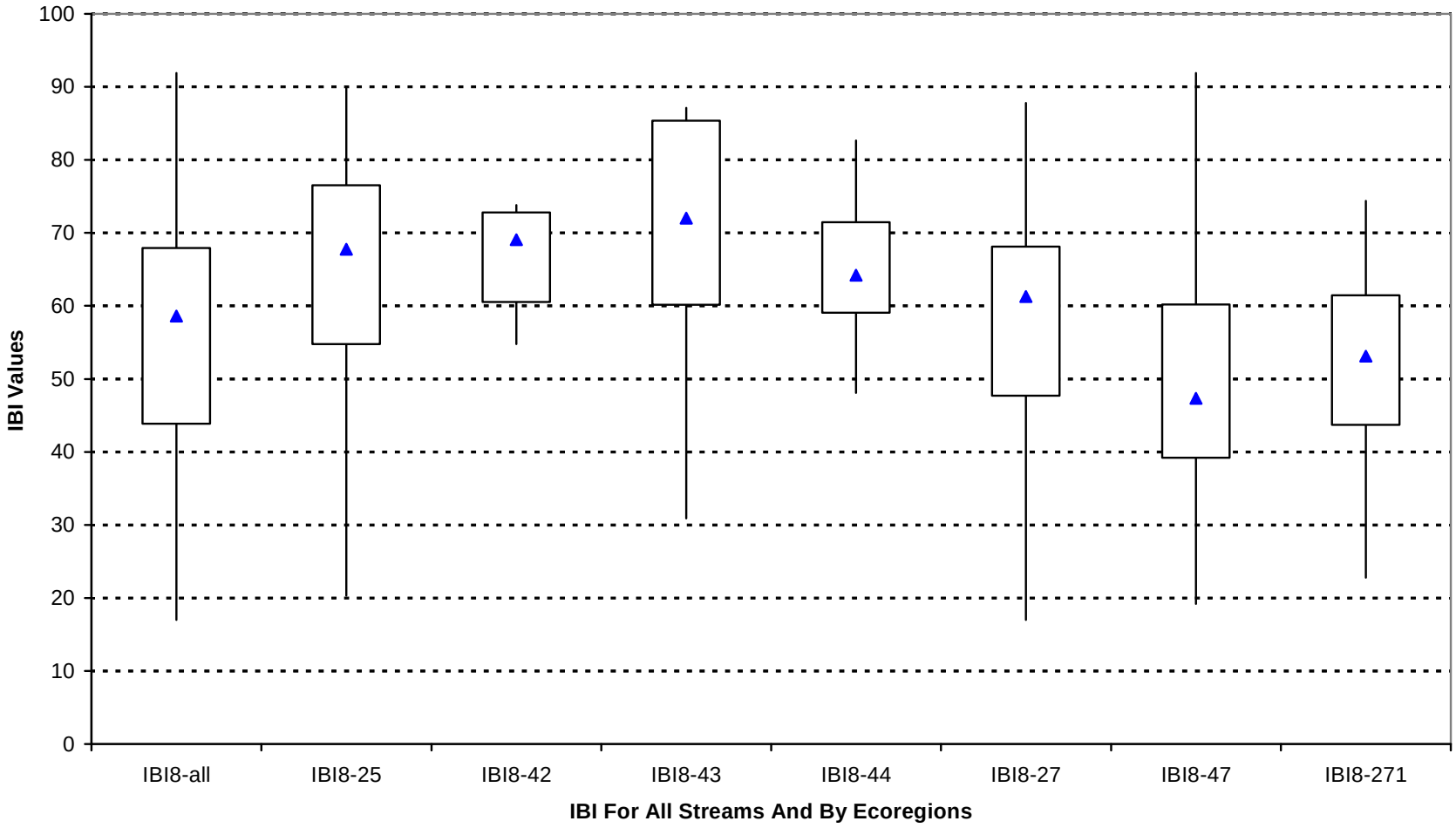


Figure 4. Distribution Of The Number of Fish Species For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

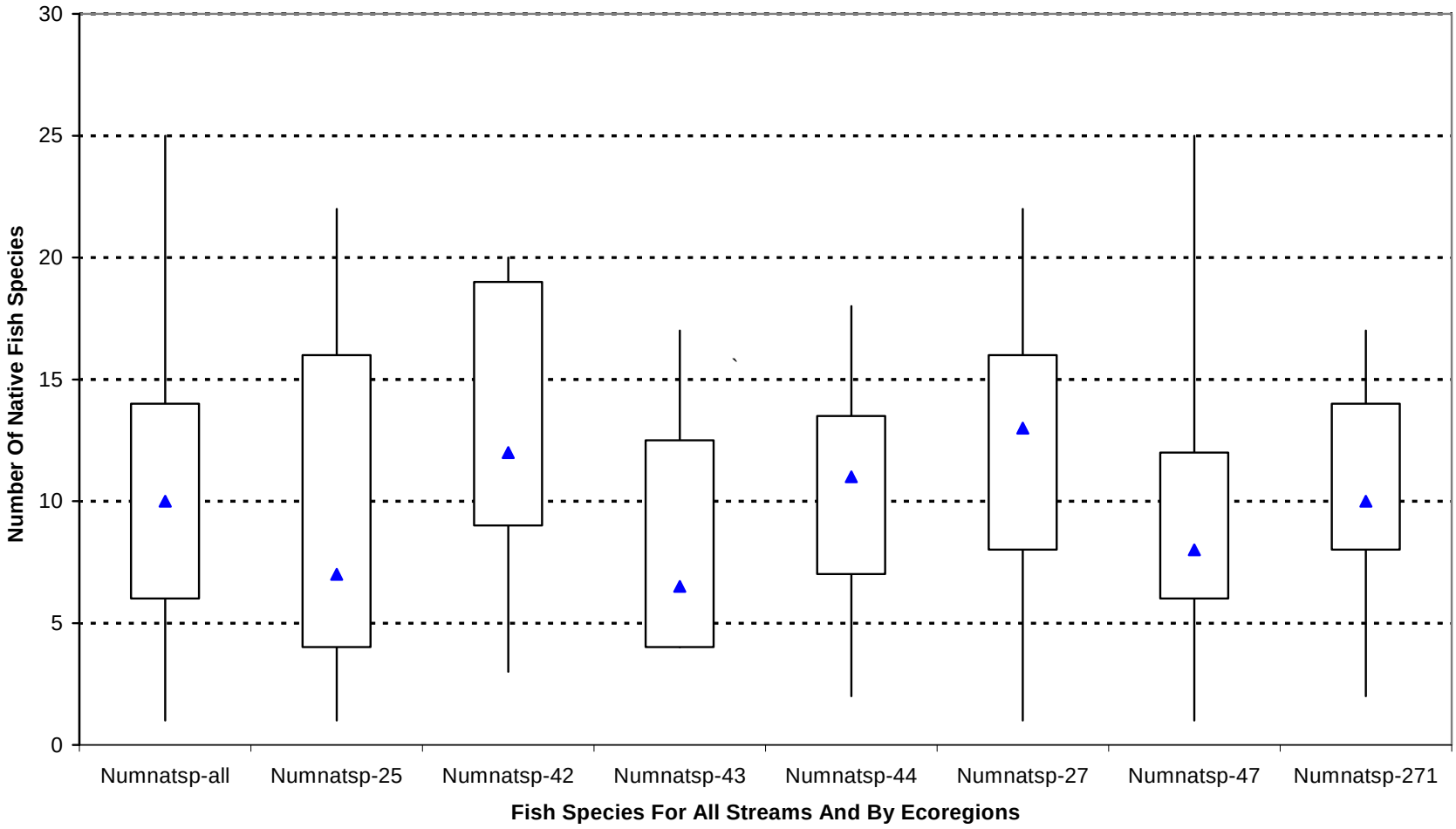


Figure 5. Distribution Of The Number Of Fish Families For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

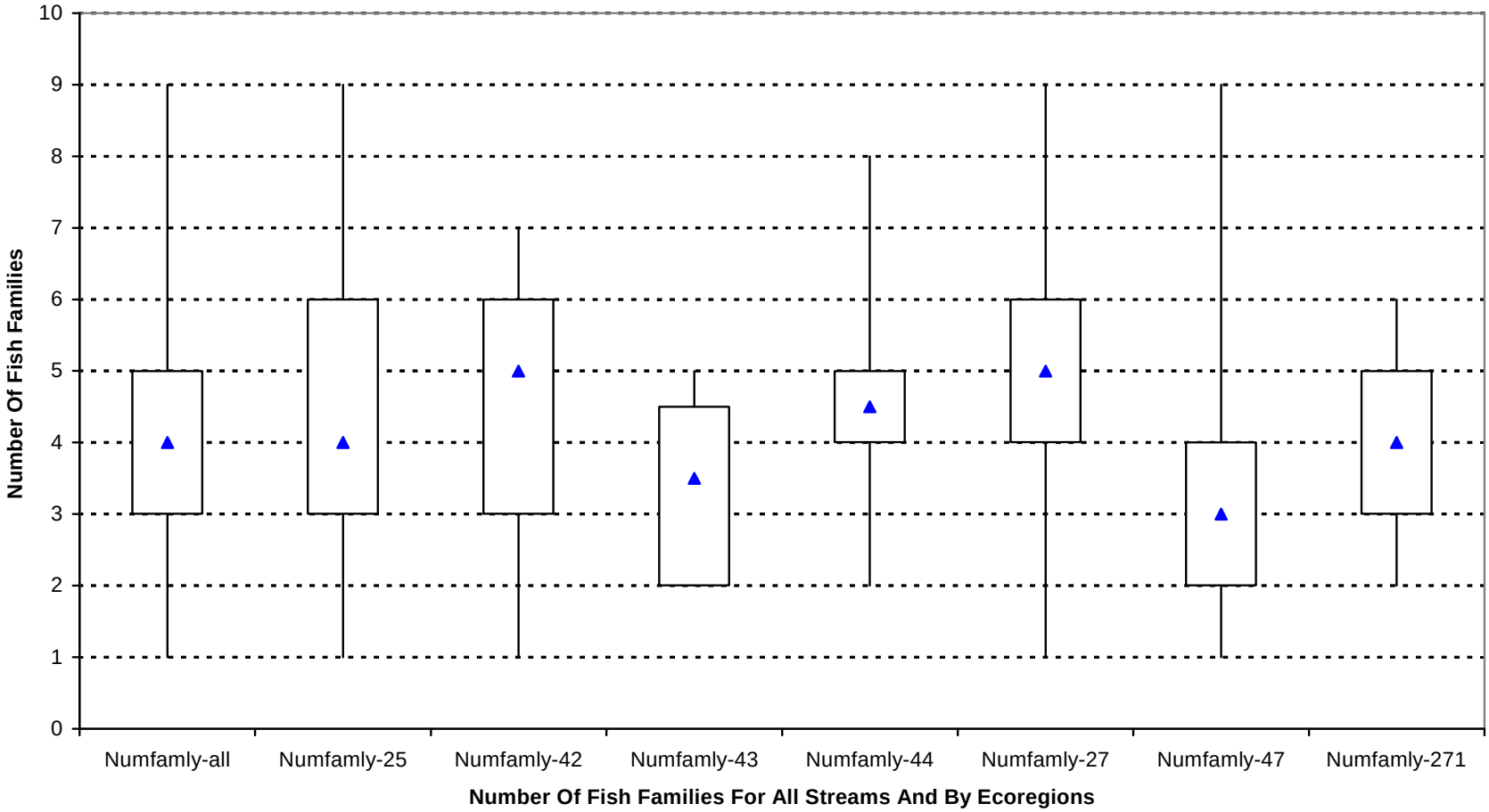


Figure 6. Distribution Of The Number Of Sensitive Species For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

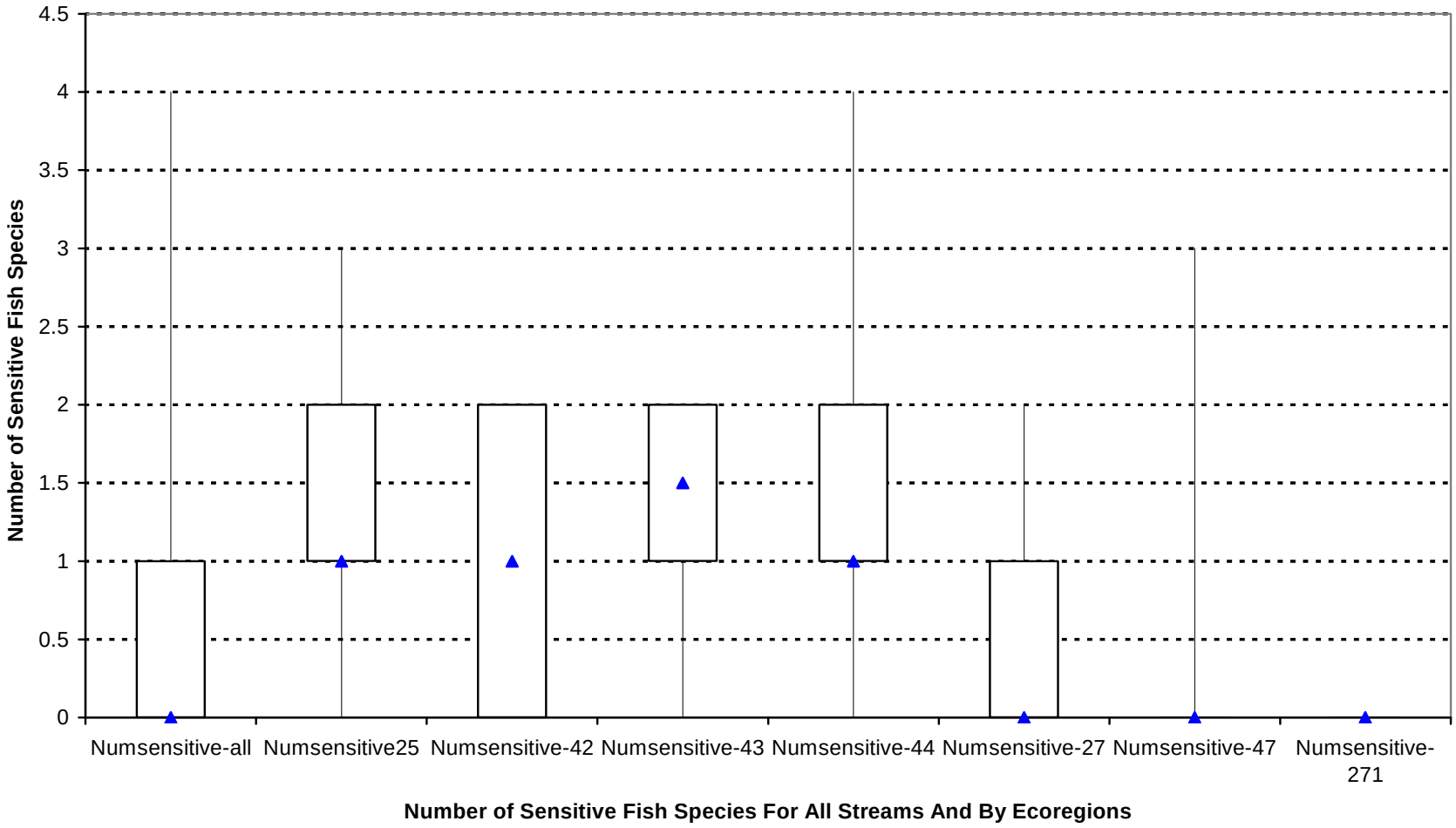


Figure 7. Distribution Of The Proportion Of Tolerant Fish Species For All Streams And By Ecoregion For The Nebraska Biological Monitoring Program, 2004-2008

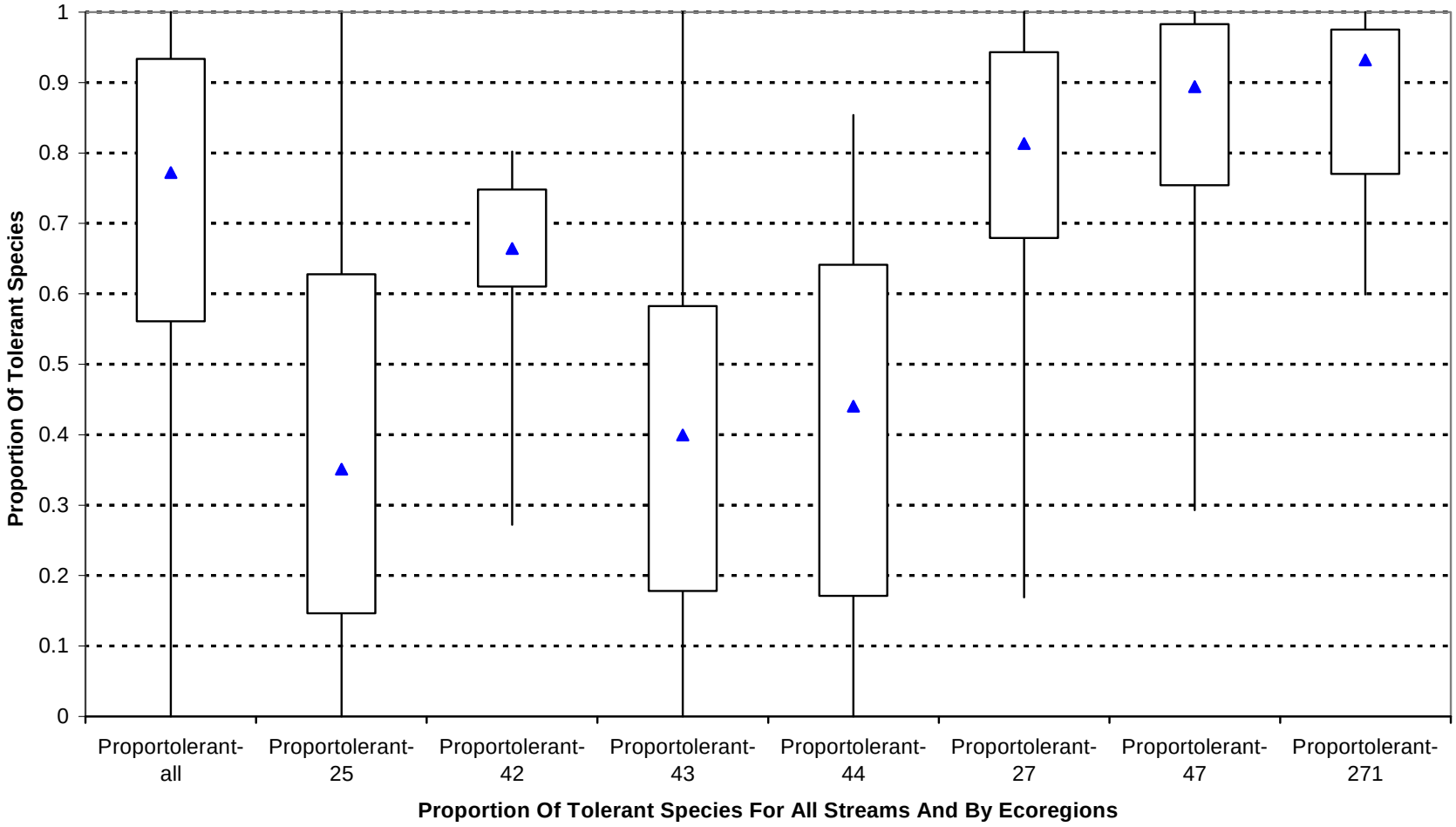


Figure 8. Distribution Of The Number Of Benthic Fish Species For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

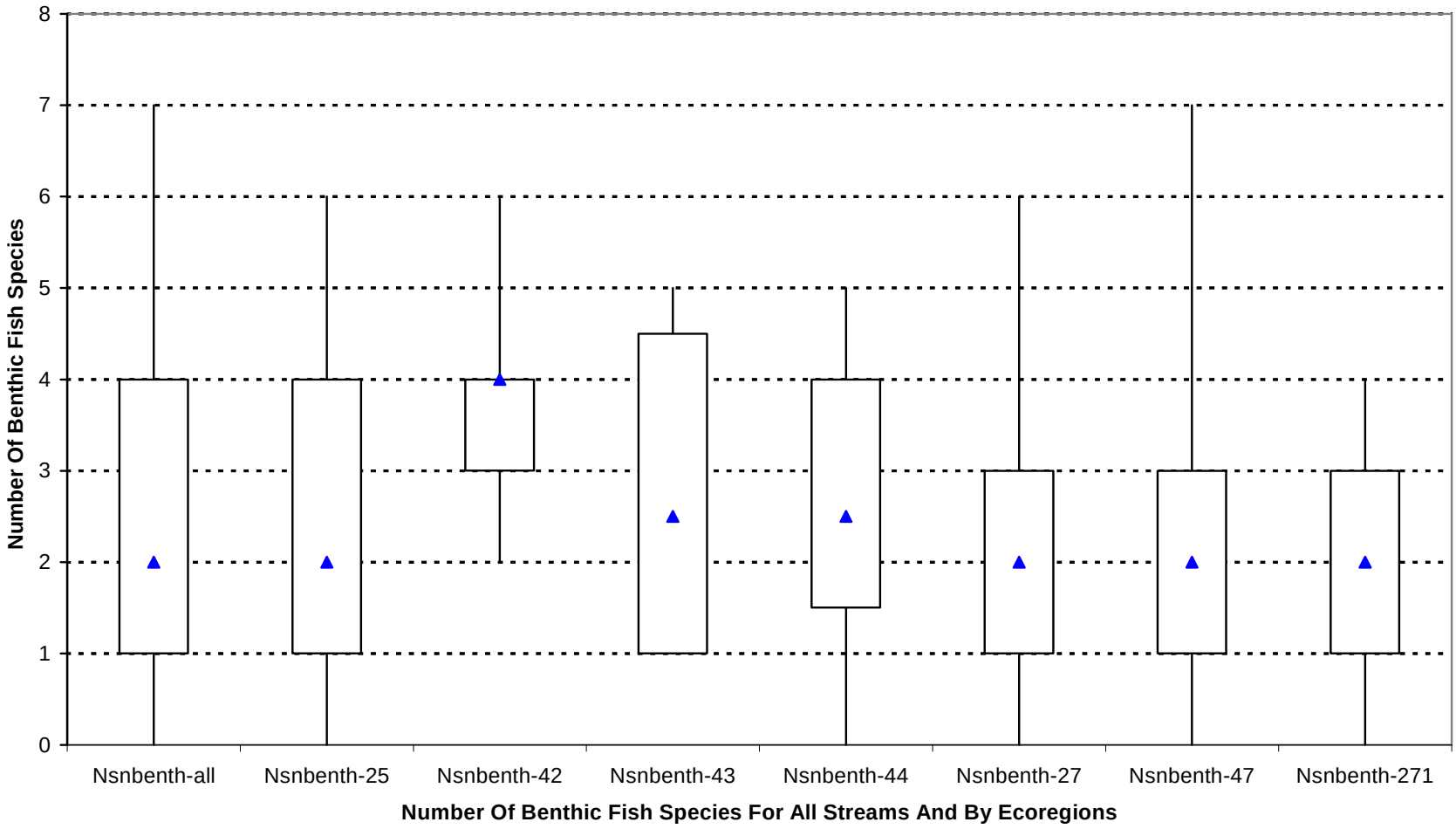


Figure 9. Distribution Of The Number Of Long-lived Fish Species For All Streams And By Ecorgions For The Nebraska Biological Monitoring Program, 2004-2008

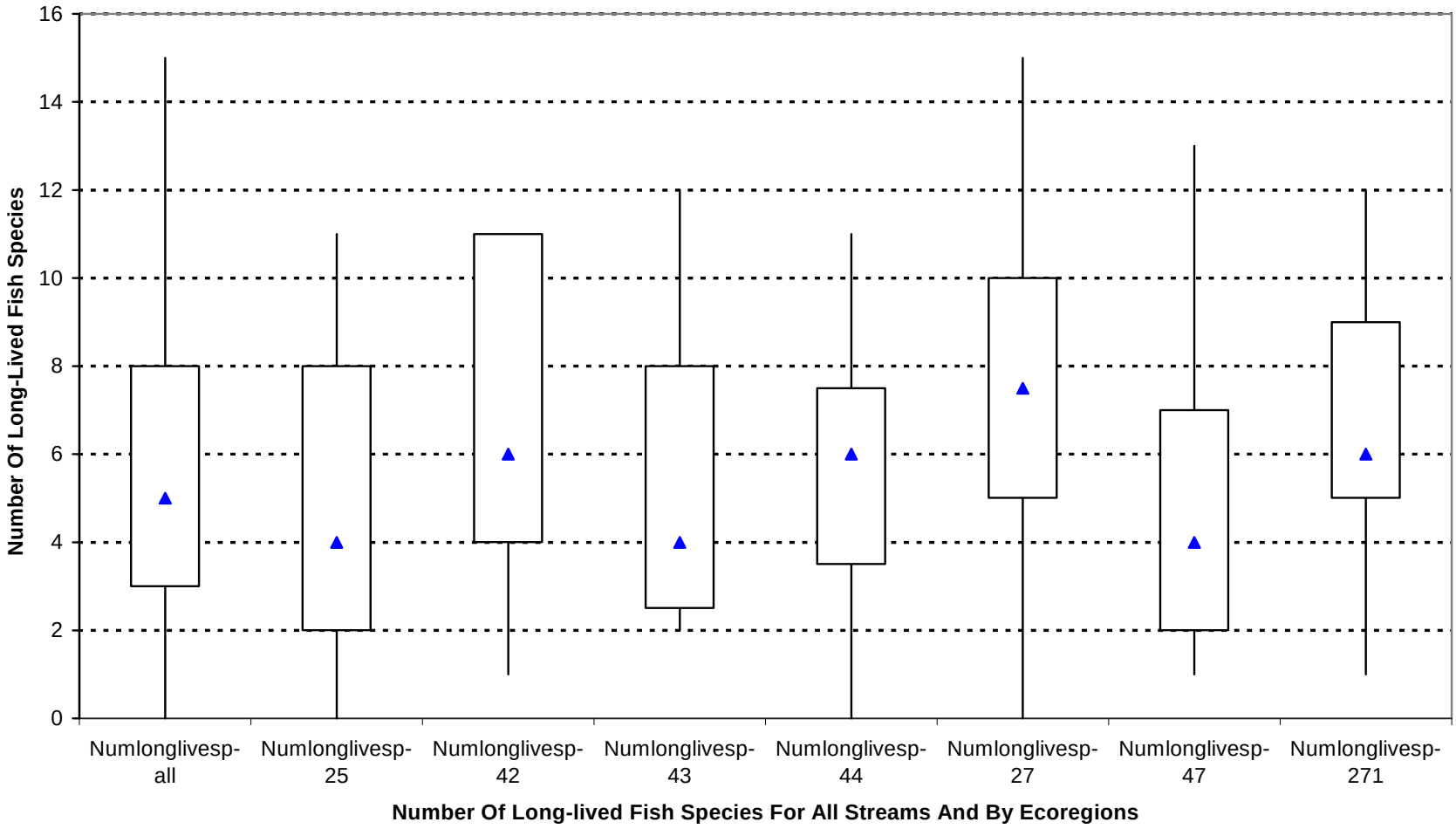


Figure 10. Distribution Of The Proportion Of Introduced Fish Species For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

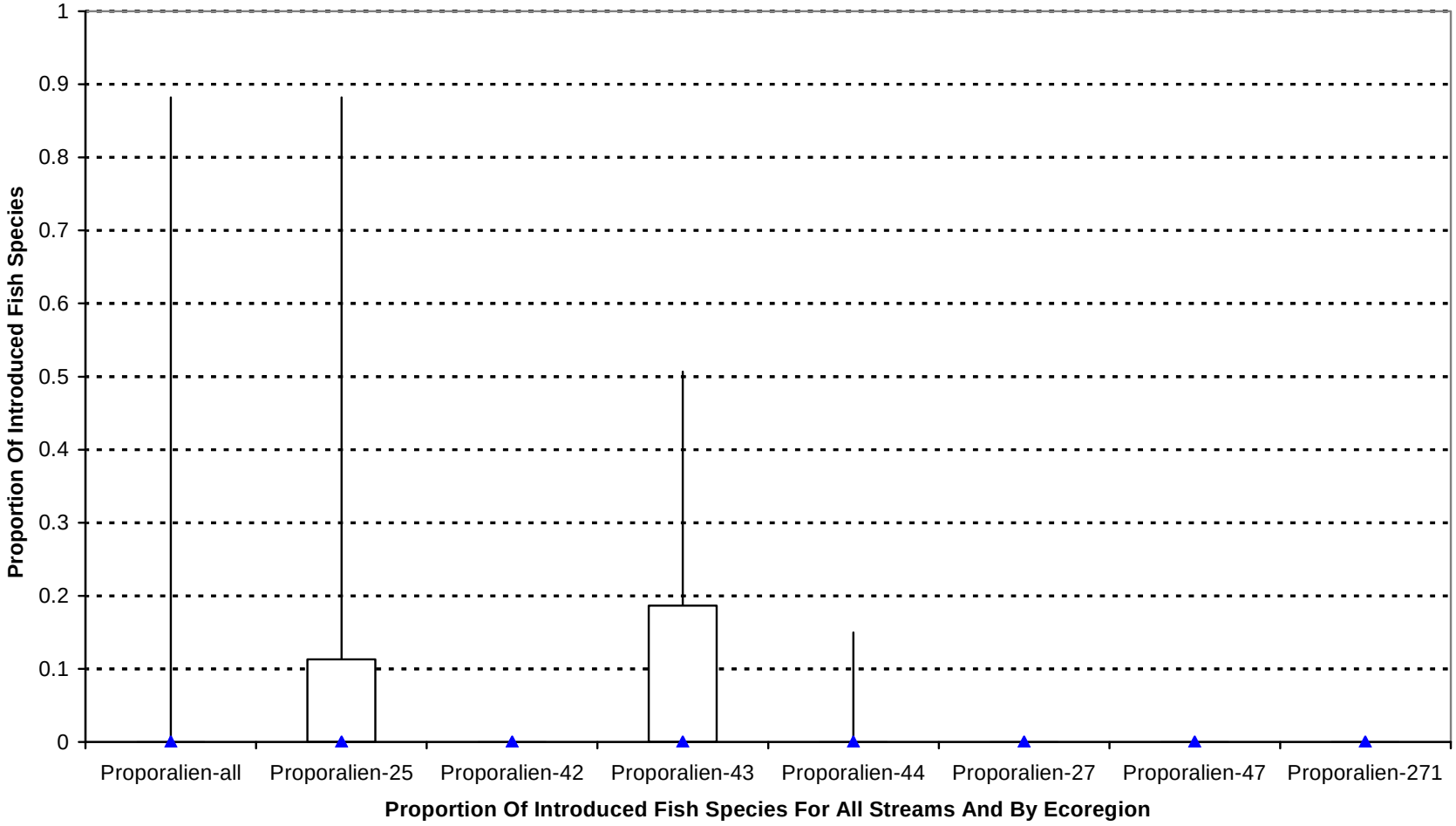


Figure 11. Distribution Of The Proportion Of Carnivorous Fish Species For All Streams and By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

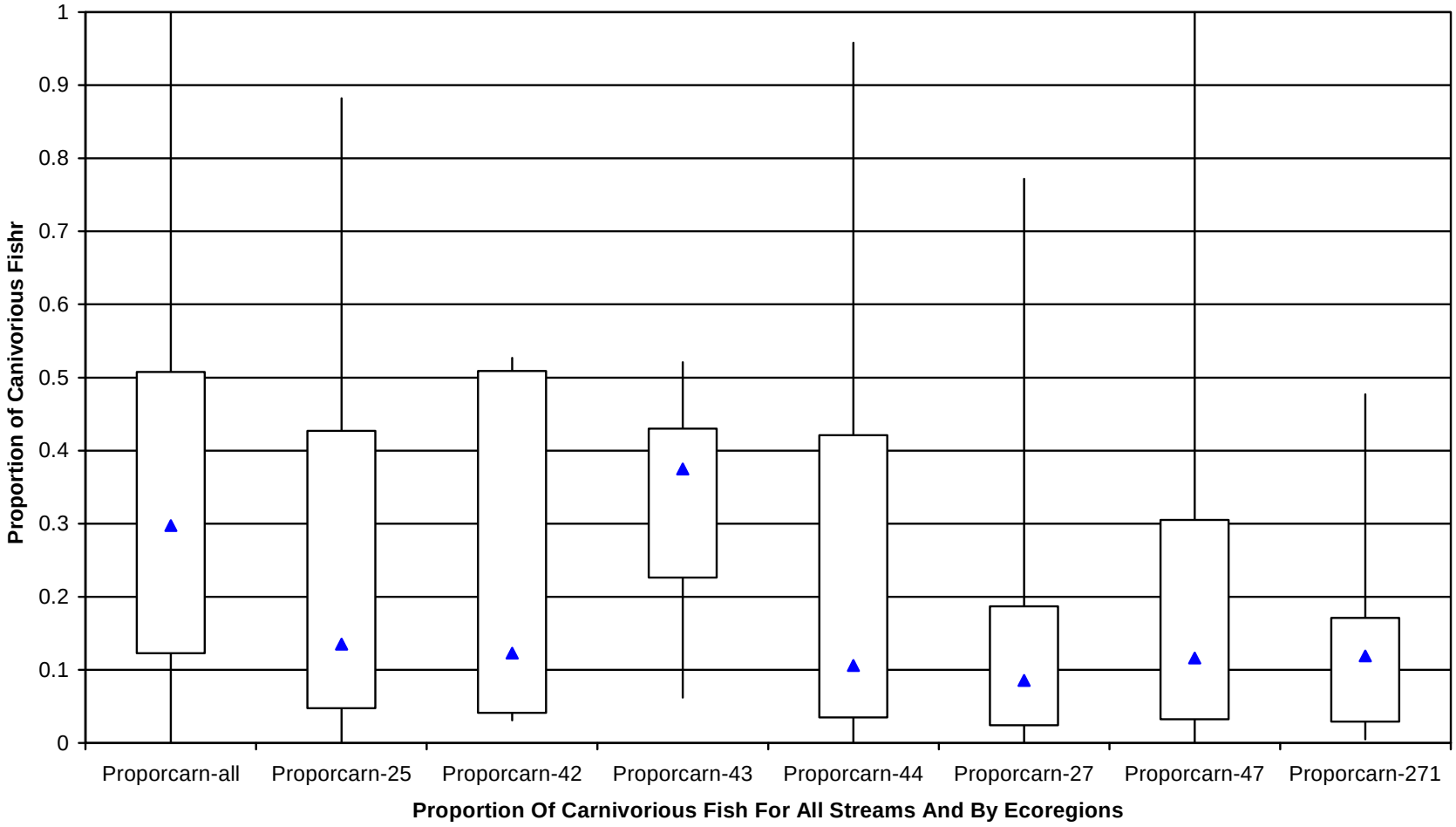


Figure 12. Distribution Of The Invertebrate Community Index (ICI) For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008.

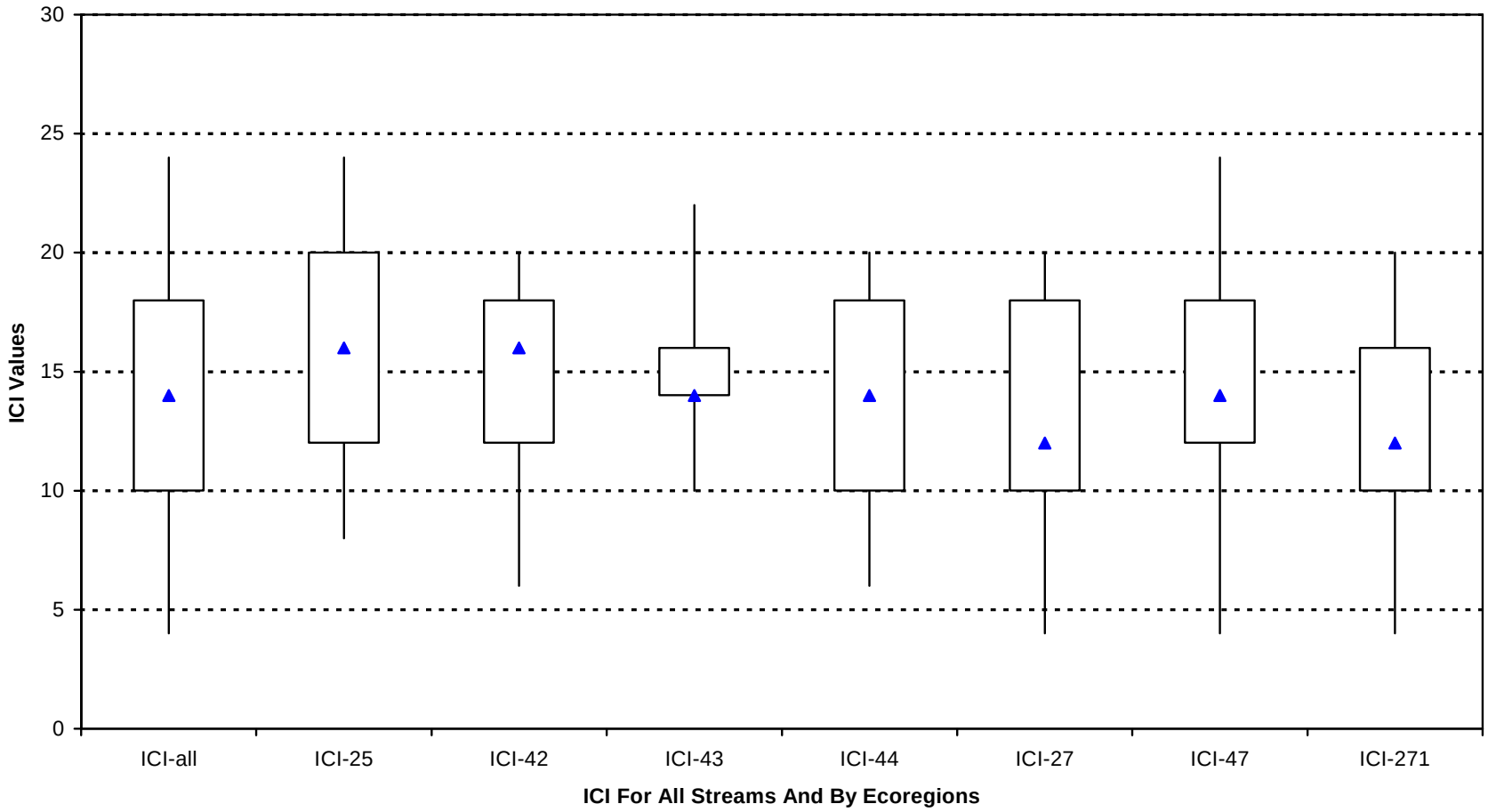


Figure 13. Distribution Of The Total Number Of Macroinvertebrate Taxa For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

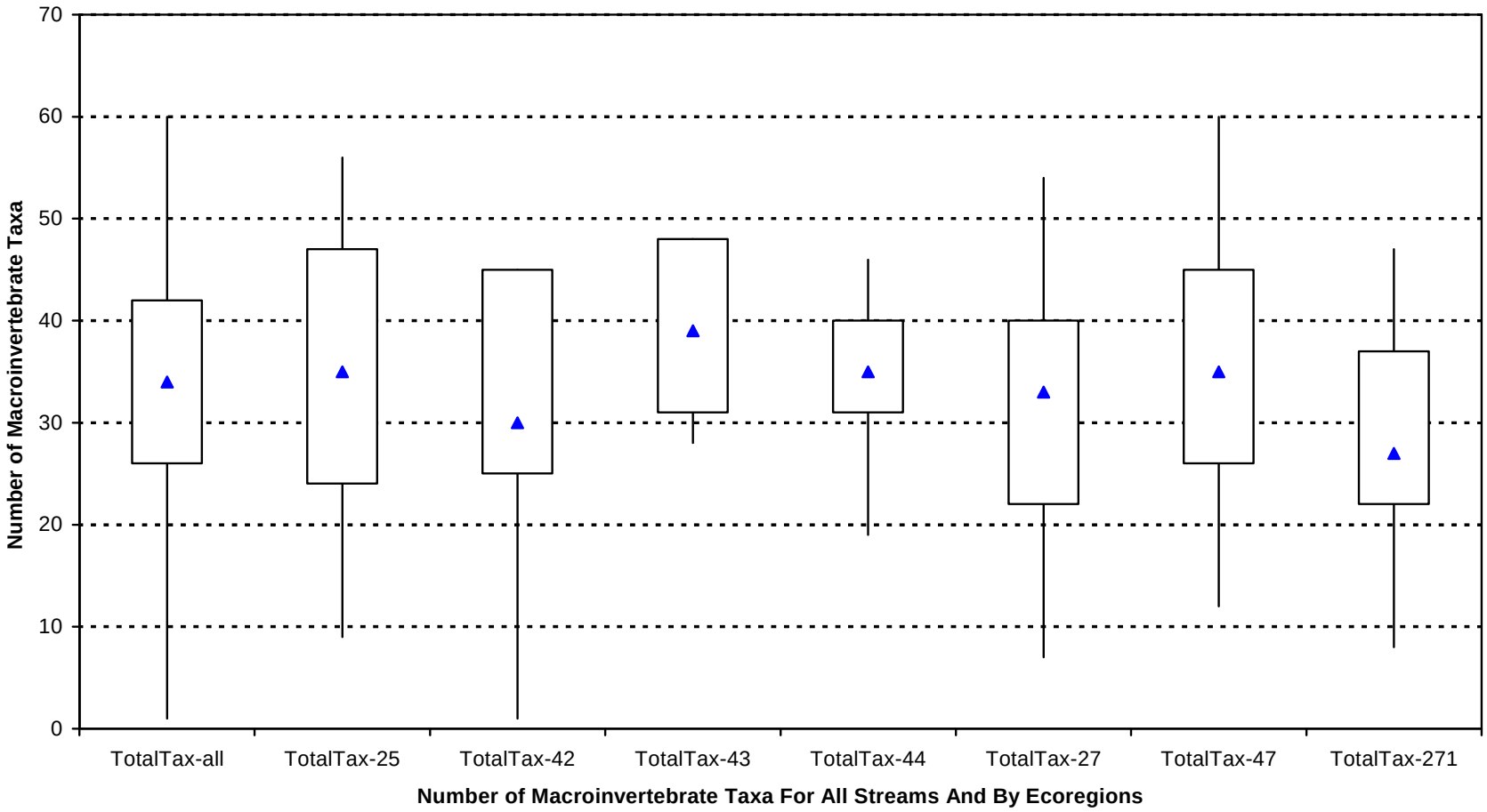


Figure 14. Distribution Of The EPT Taxa (Ephemeroptera, Plecoptera, Trichoptera) For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

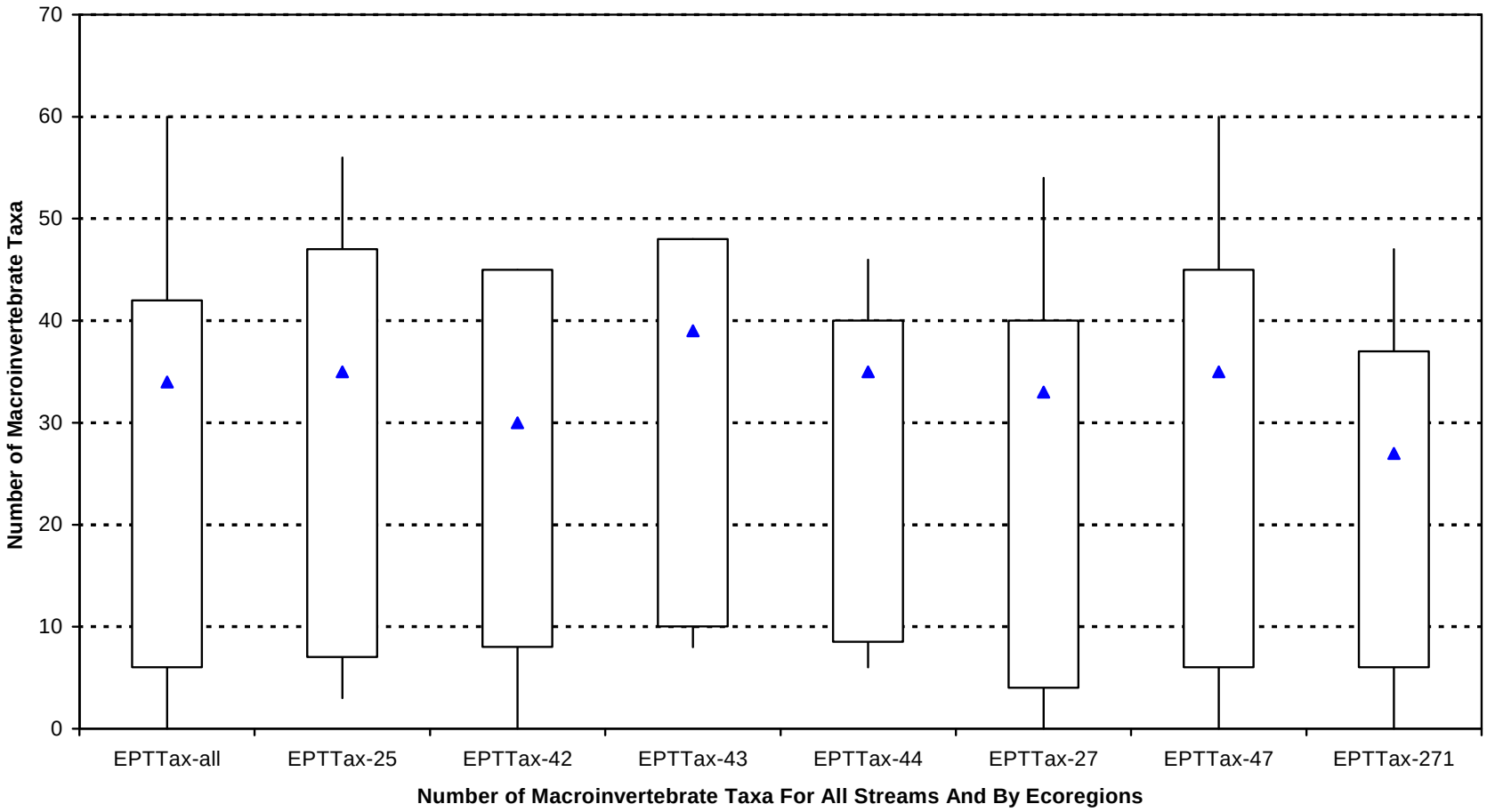


Figure 15. Macroinvertebrate Hilsenhoff Biotic Index (HBI) For All Streams And By Ecoregions For the Nebraska Biological Monitoring Program, 2004-2008. Lower Values Are Less Tolerant Individuals.

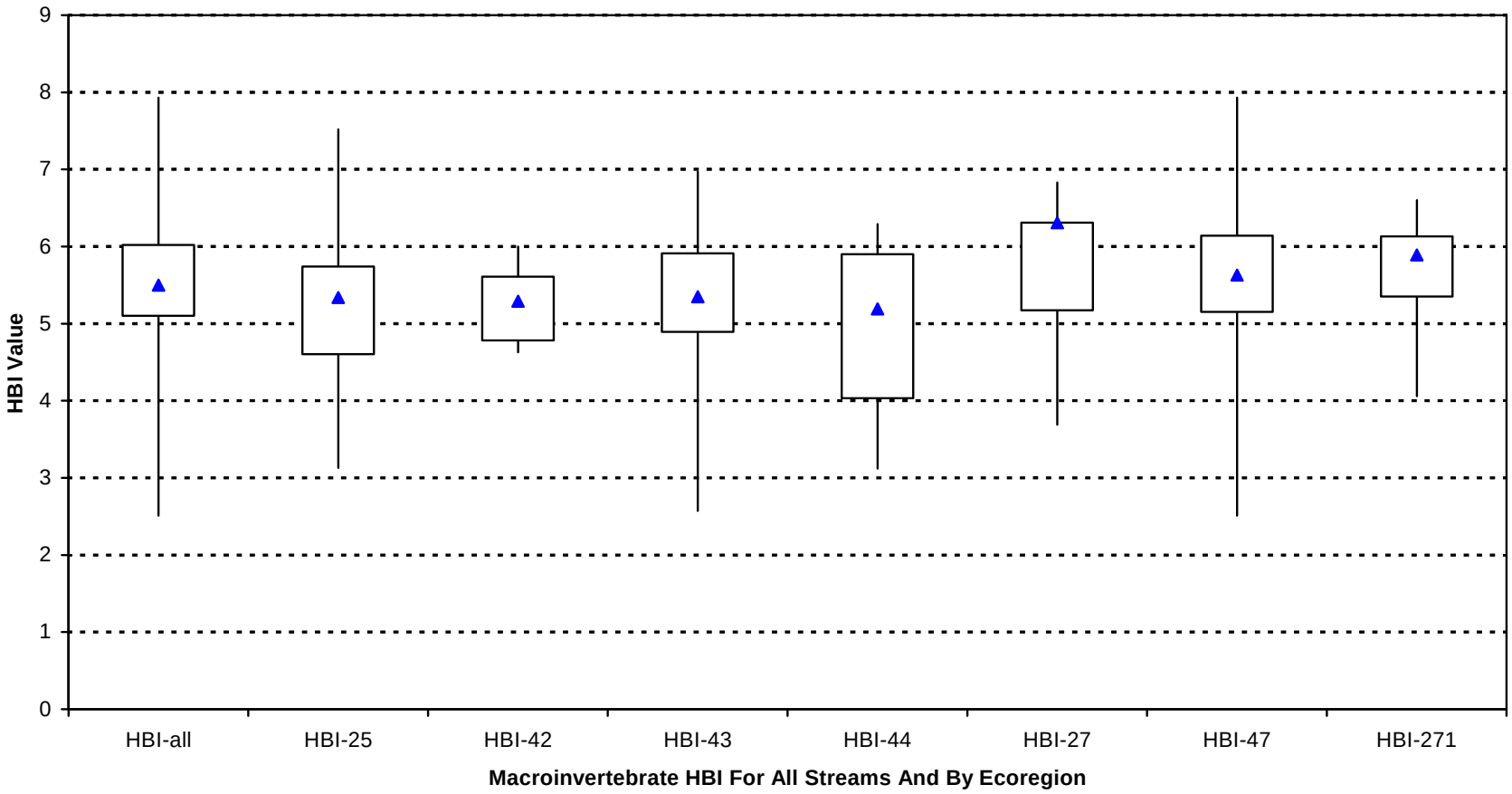


Figure 16. Distribution Of The Macroinvertebrate Percent Contribution Of Dominant Taxon For All Streams And By Ecooegions For The Nebraska Biological Monitoring Program, 2004-2008

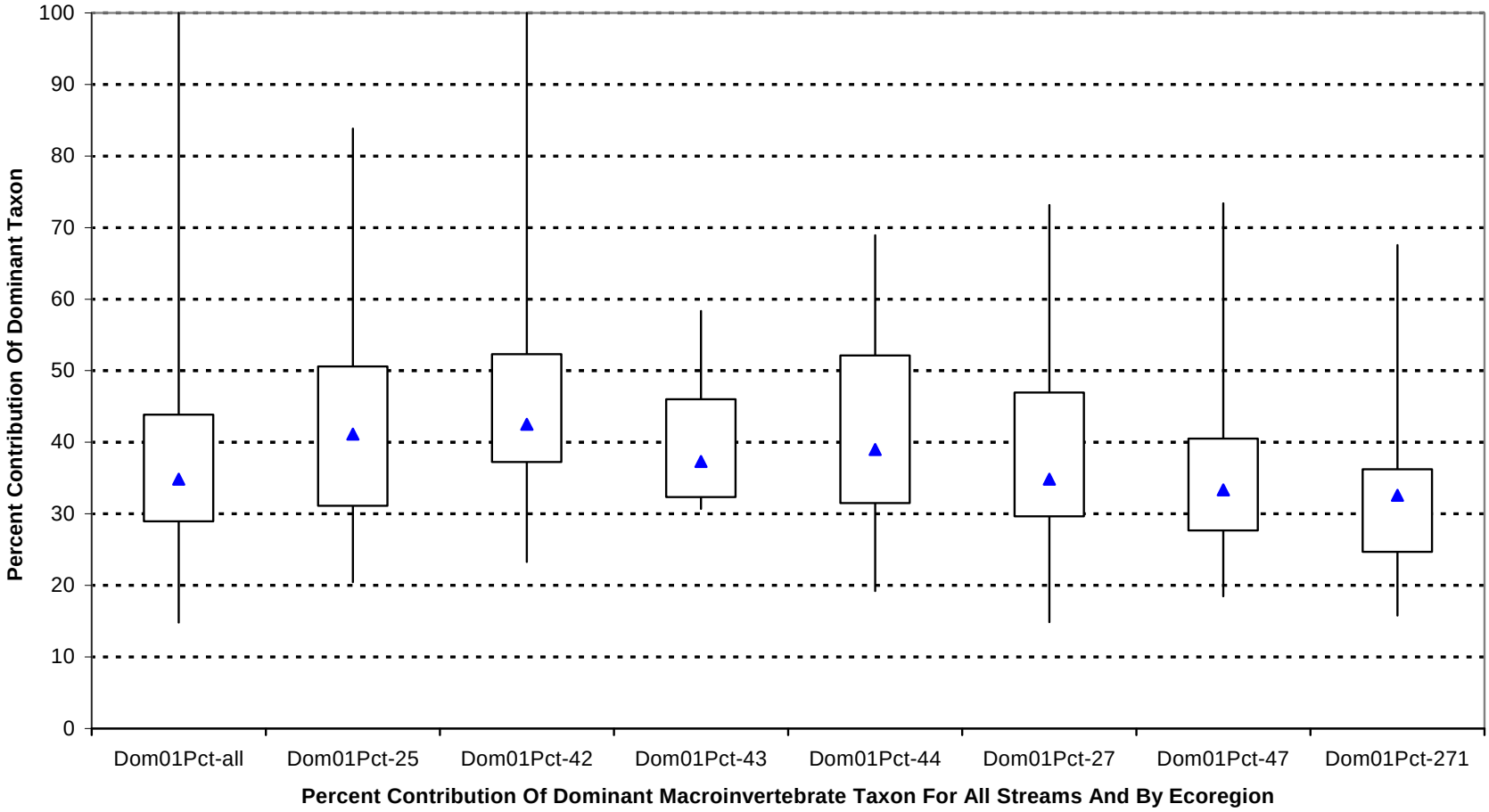


Figure 17. Distribution of the Nebraska Habitat Index (NHI) For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008.

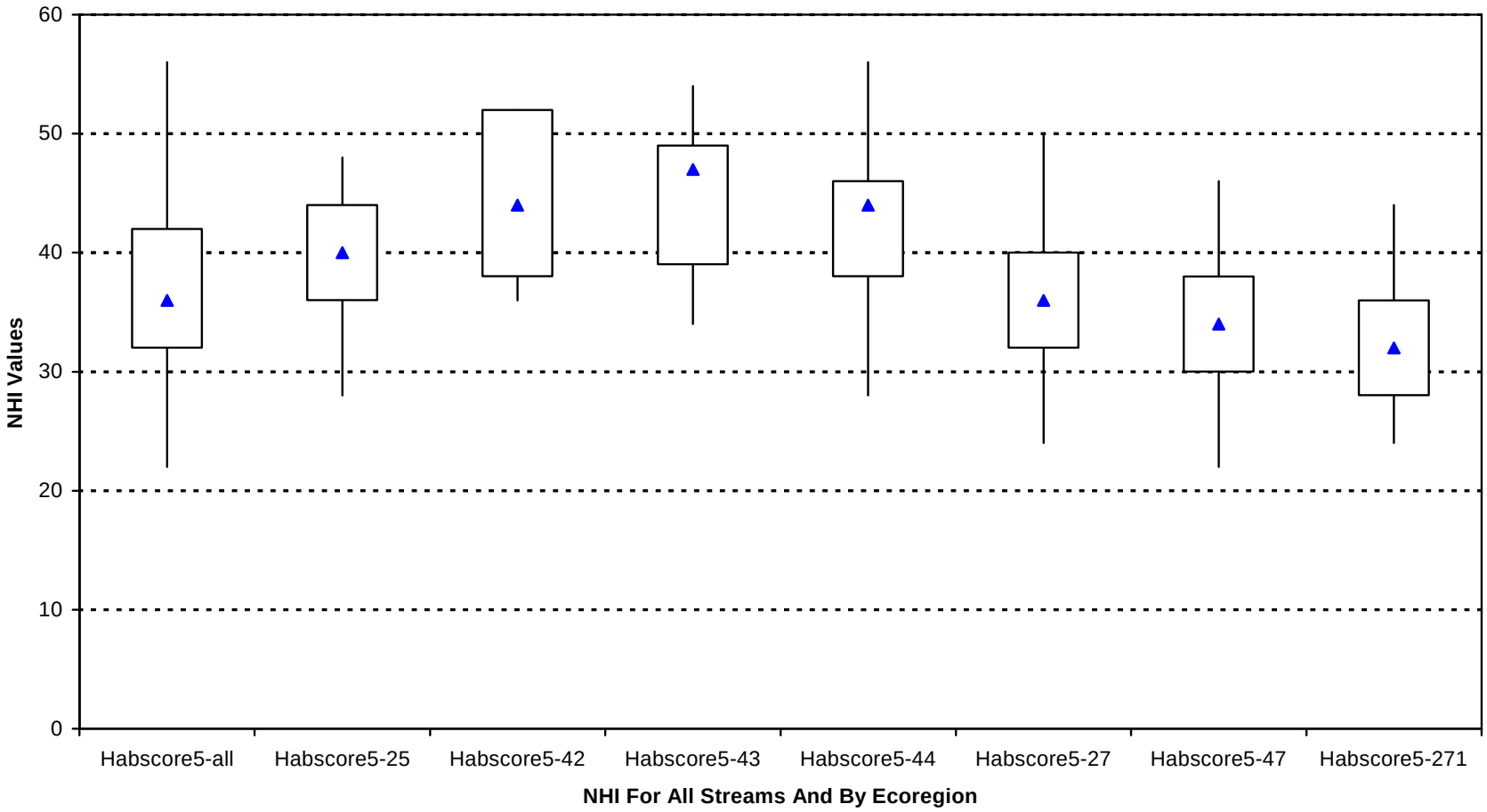


Figure 18. Distribution Of The Incision/Width Ratio Values For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008.

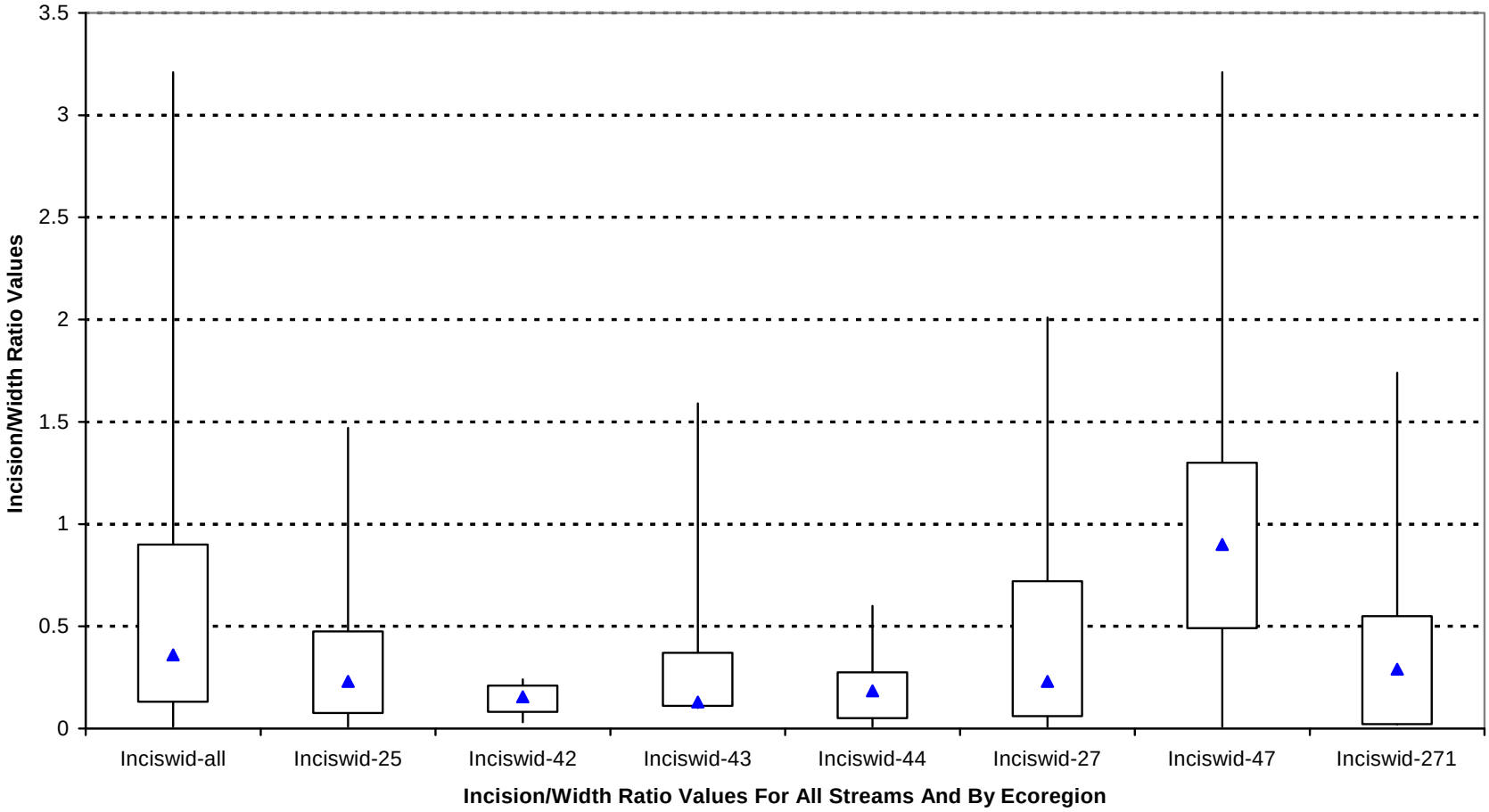


Figure 19. Distribution Of The Percent Sand Substrate For All Streams And By Ecoregions For the Nebraska Biological Monitoring Program, 2004-2008

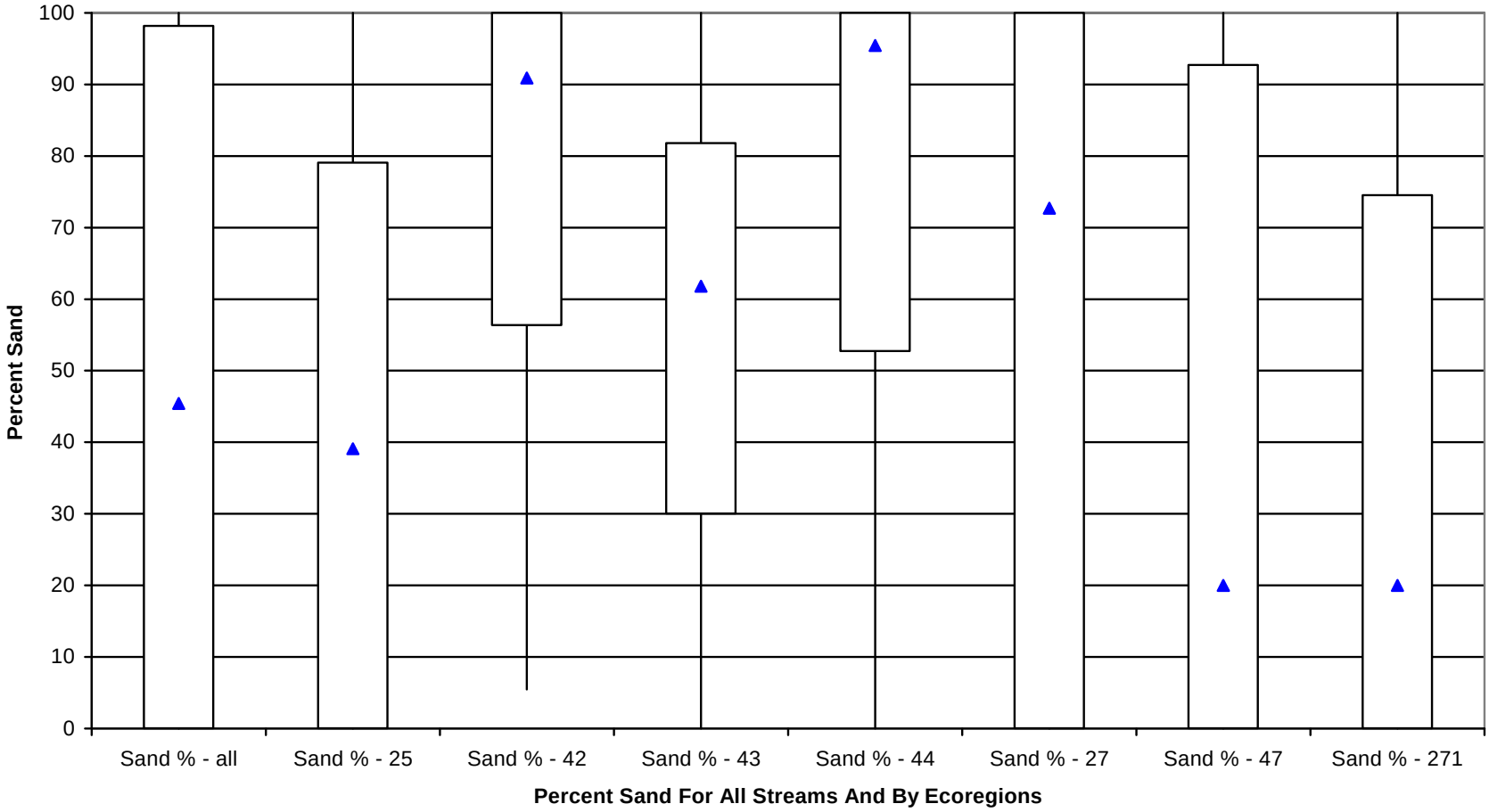


Figure 20. Distribution Of The Percentage of Cropland For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

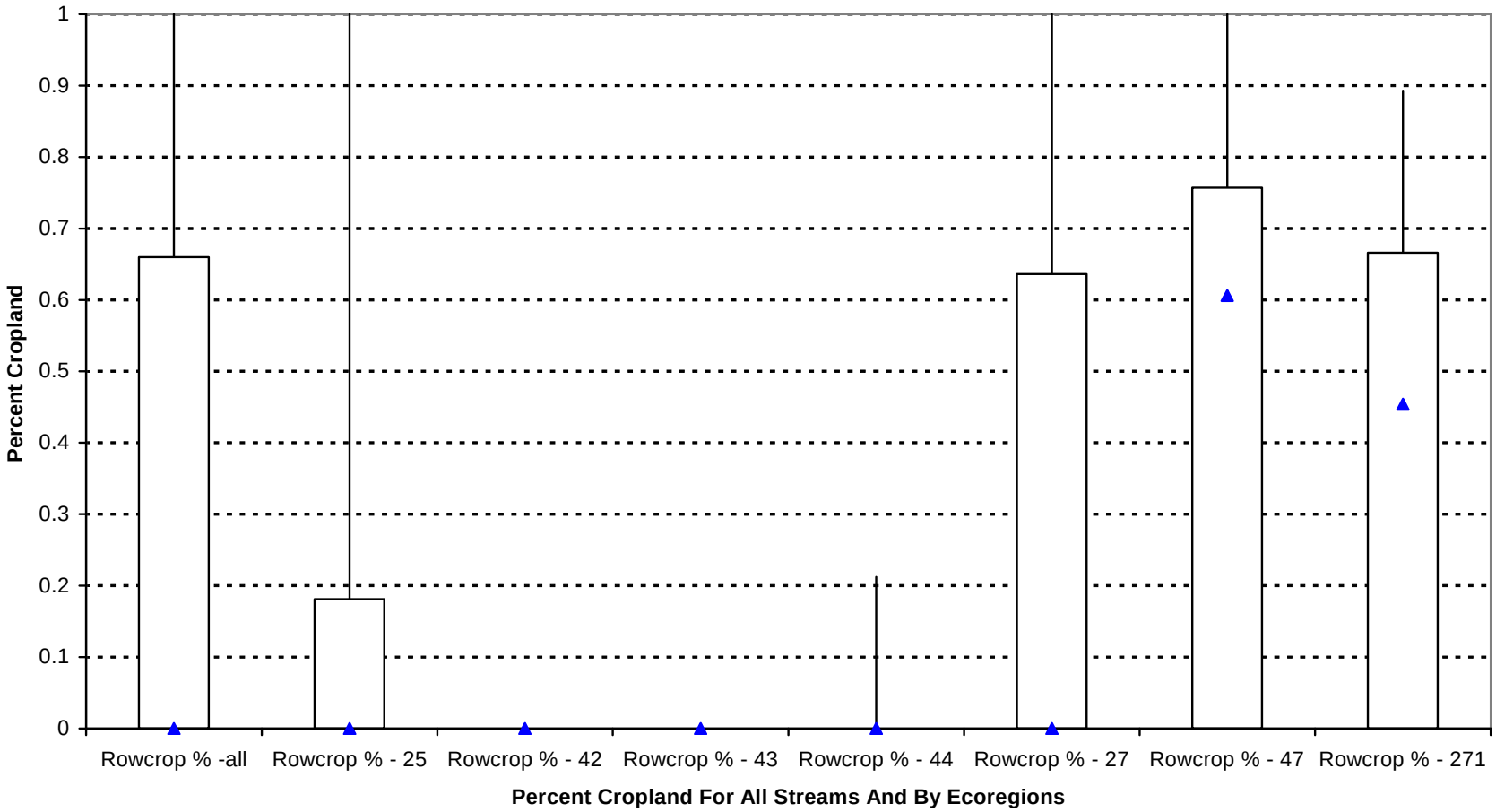


Figure 21. Distribution Of The Percent Riffles For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

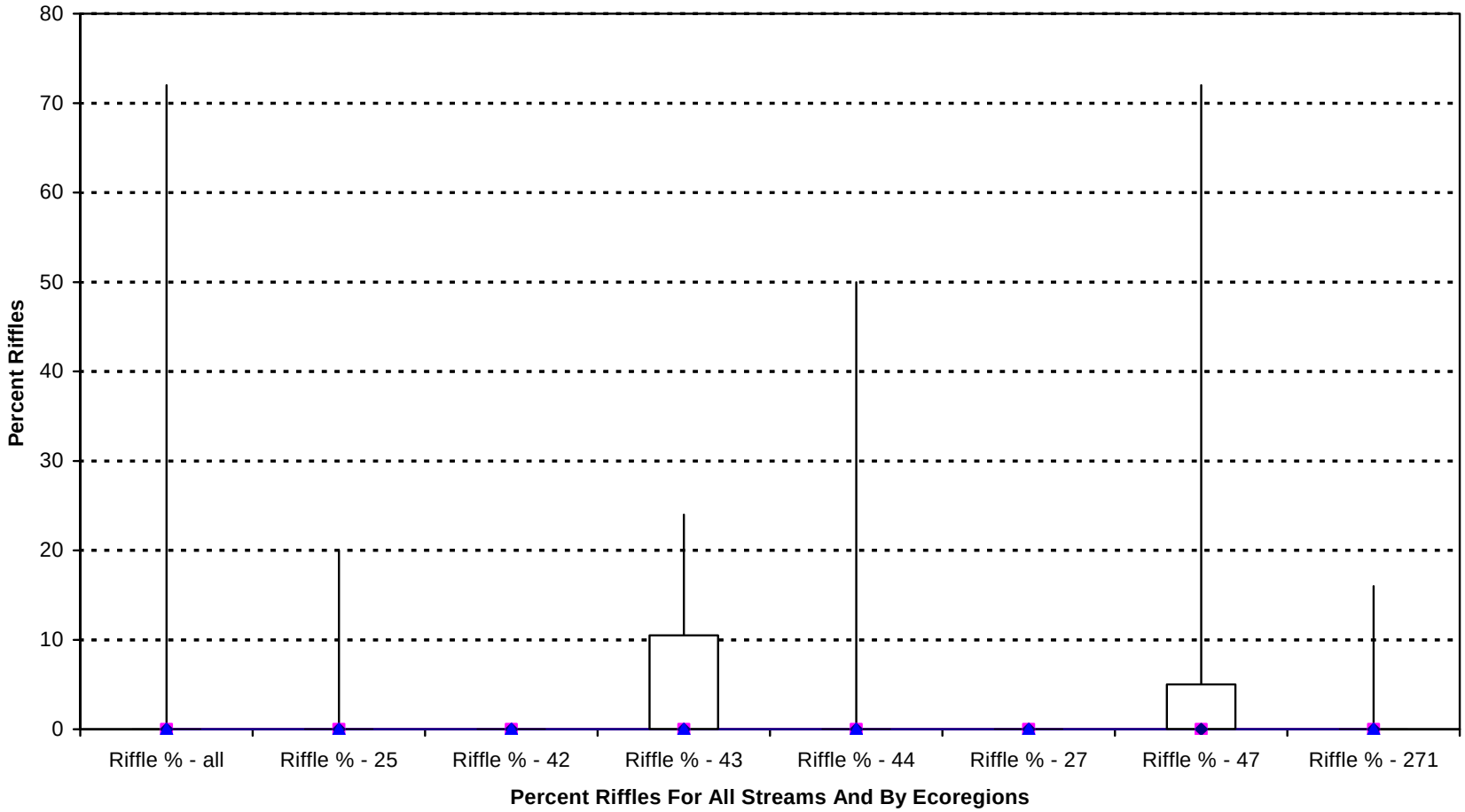


Figure 22. Distribution Of The Percent Undercut Banks For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

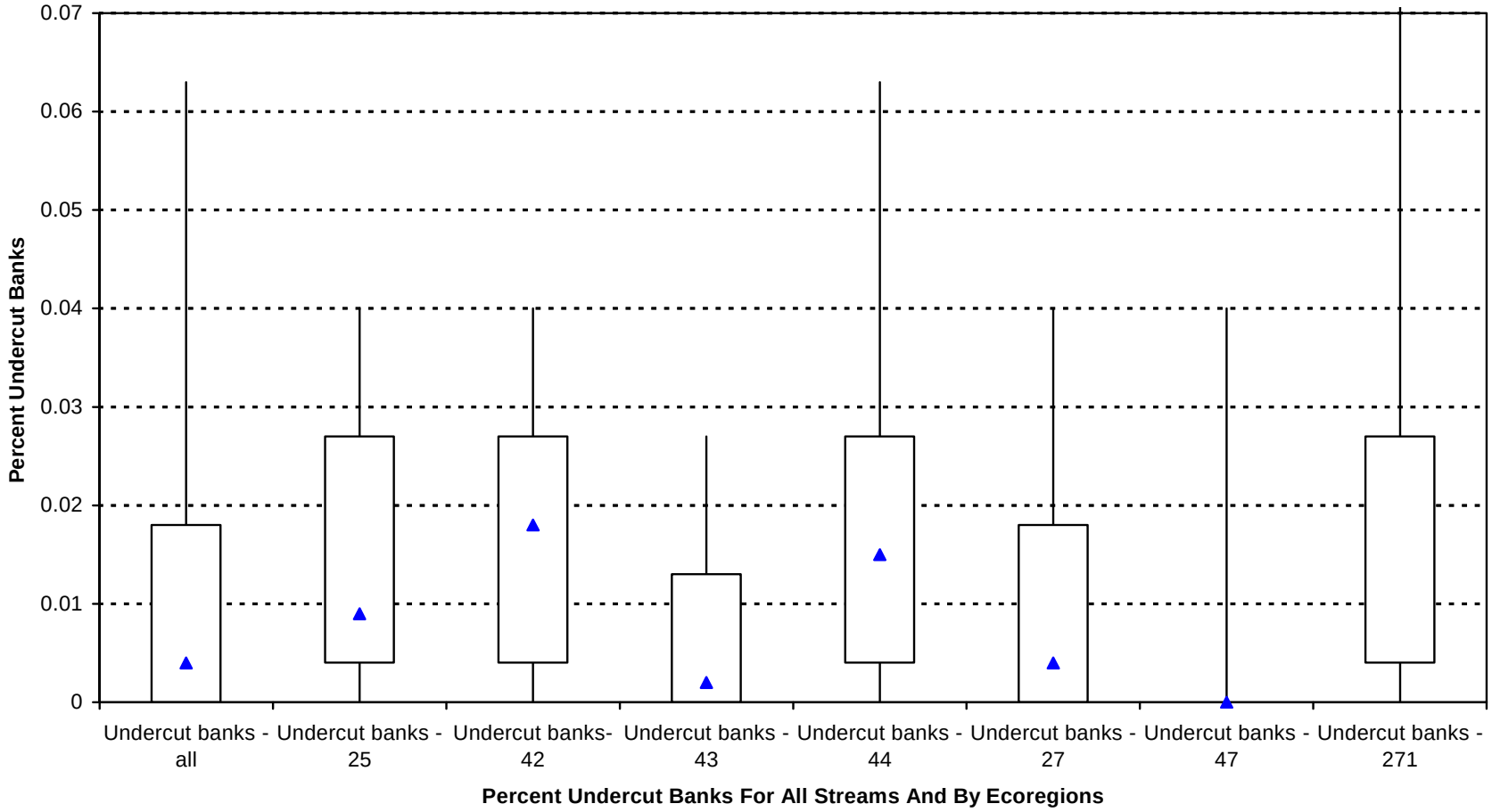


Figure 23. Distribution Of The Percent Overhanging Vegetation For All Streams And By Ecoregions For the Nebraska Biological Monitoring Program, 2004-2008

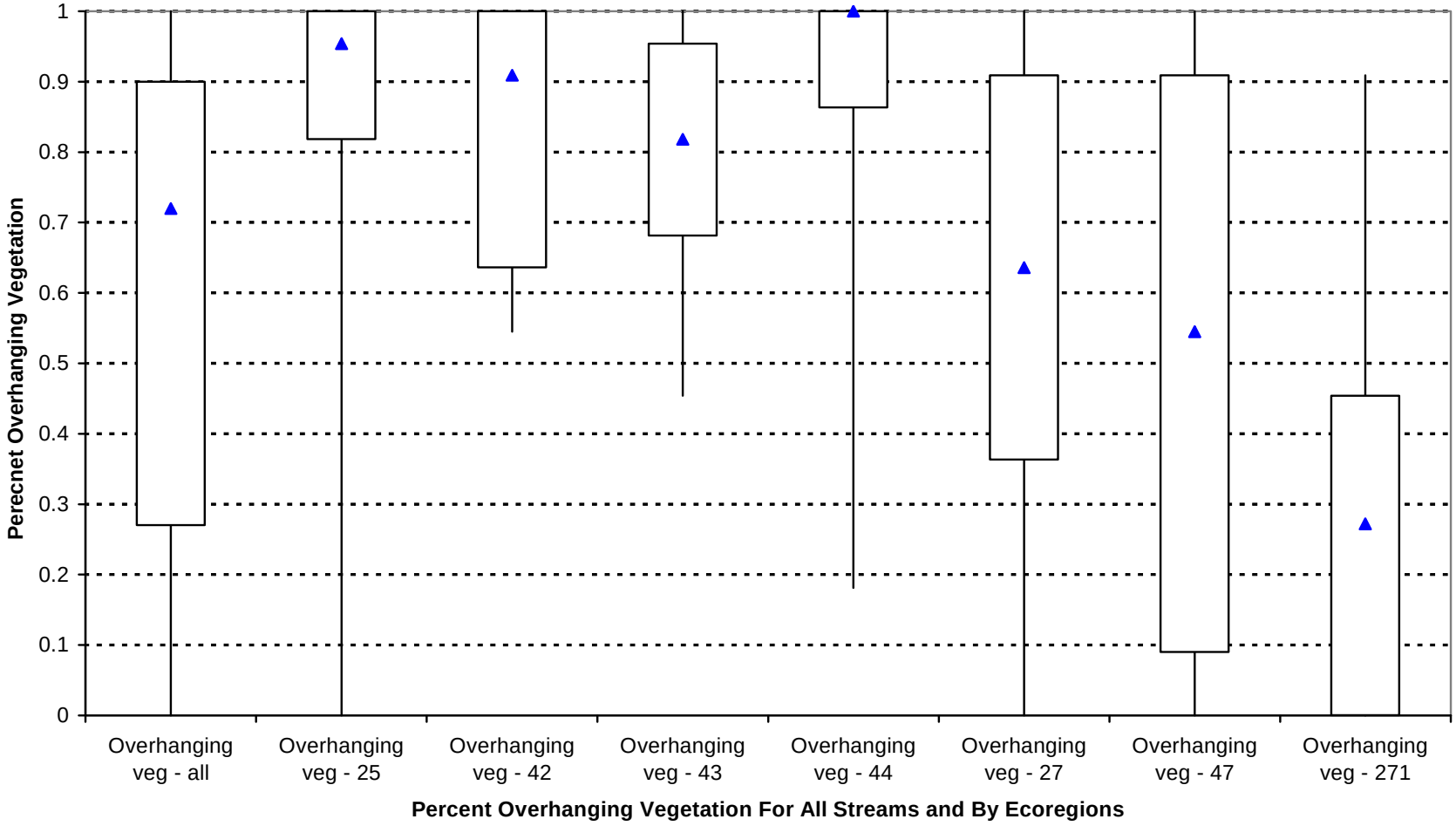


Figure 24. Distribution Of The Percent Silt Substrate For All Streams And By Ecoregions For The Nebraska Monitoring Program, 2004-2008

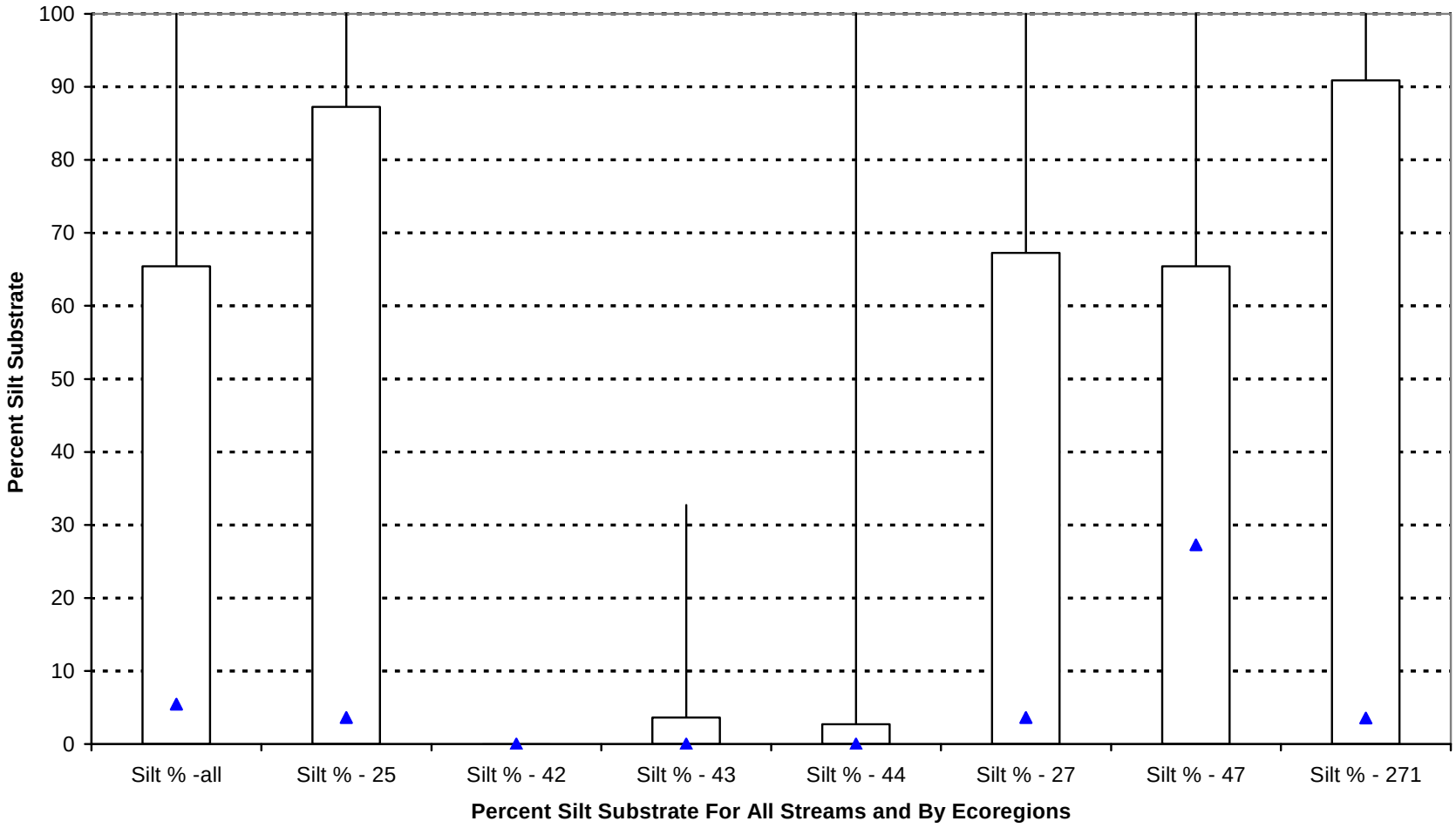


Figure 25. Distribution Of The Middle Canopy Layer Along The Stream Bank For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

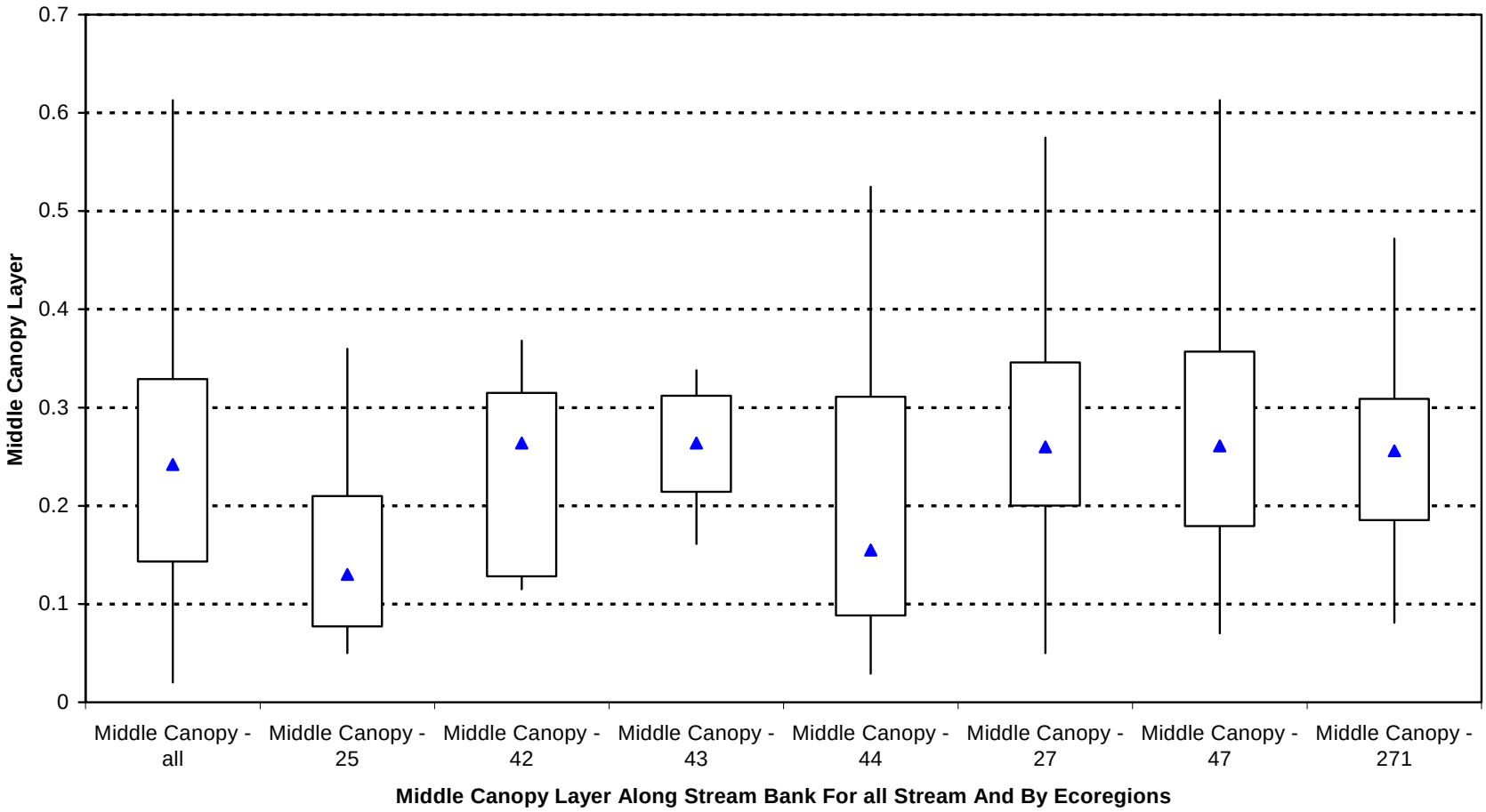


Figure 26. Distribution Of Percentage Of Pools For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

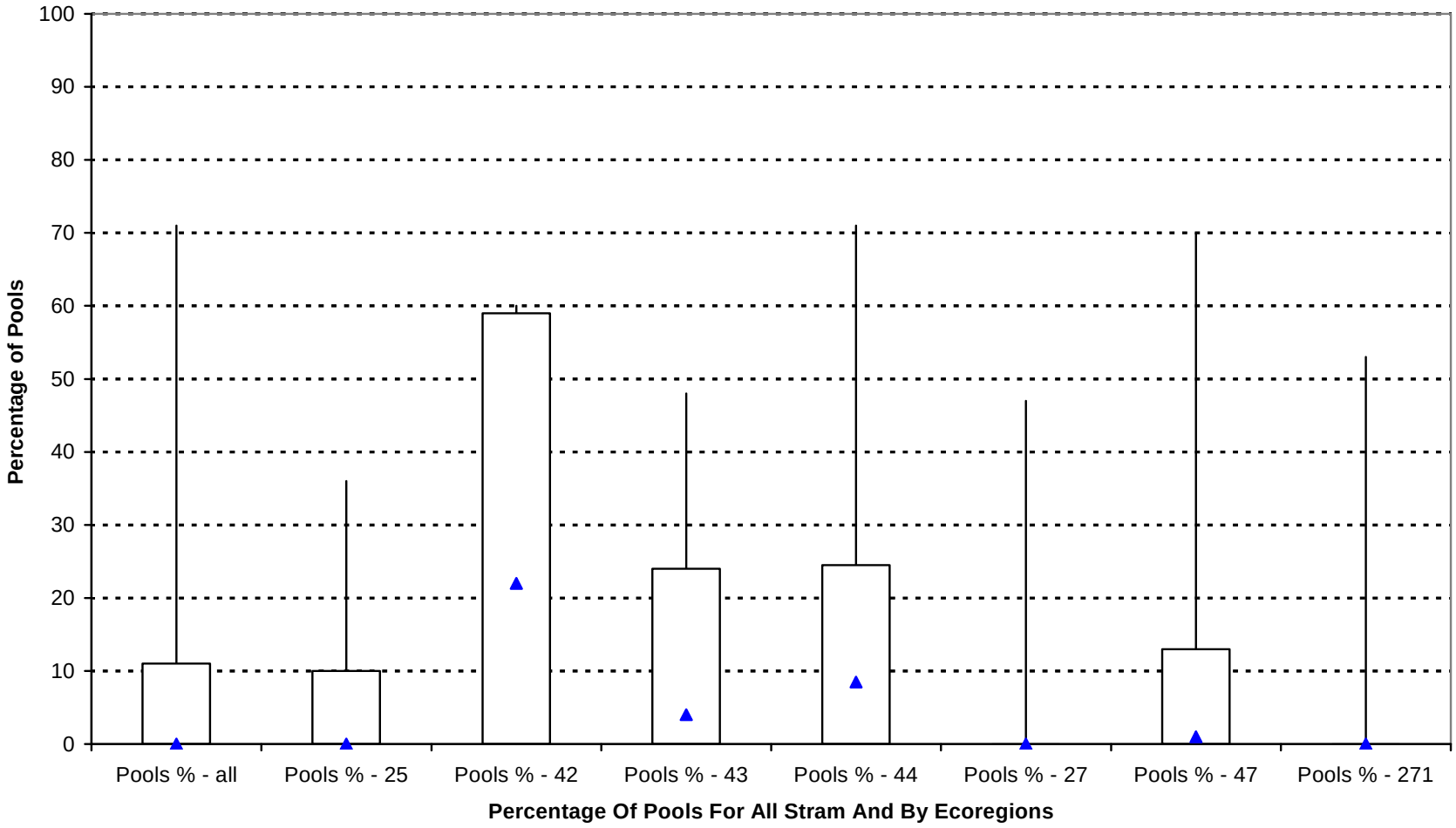


Figure 27. Distribution Of The Percent Of Barren Banks For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

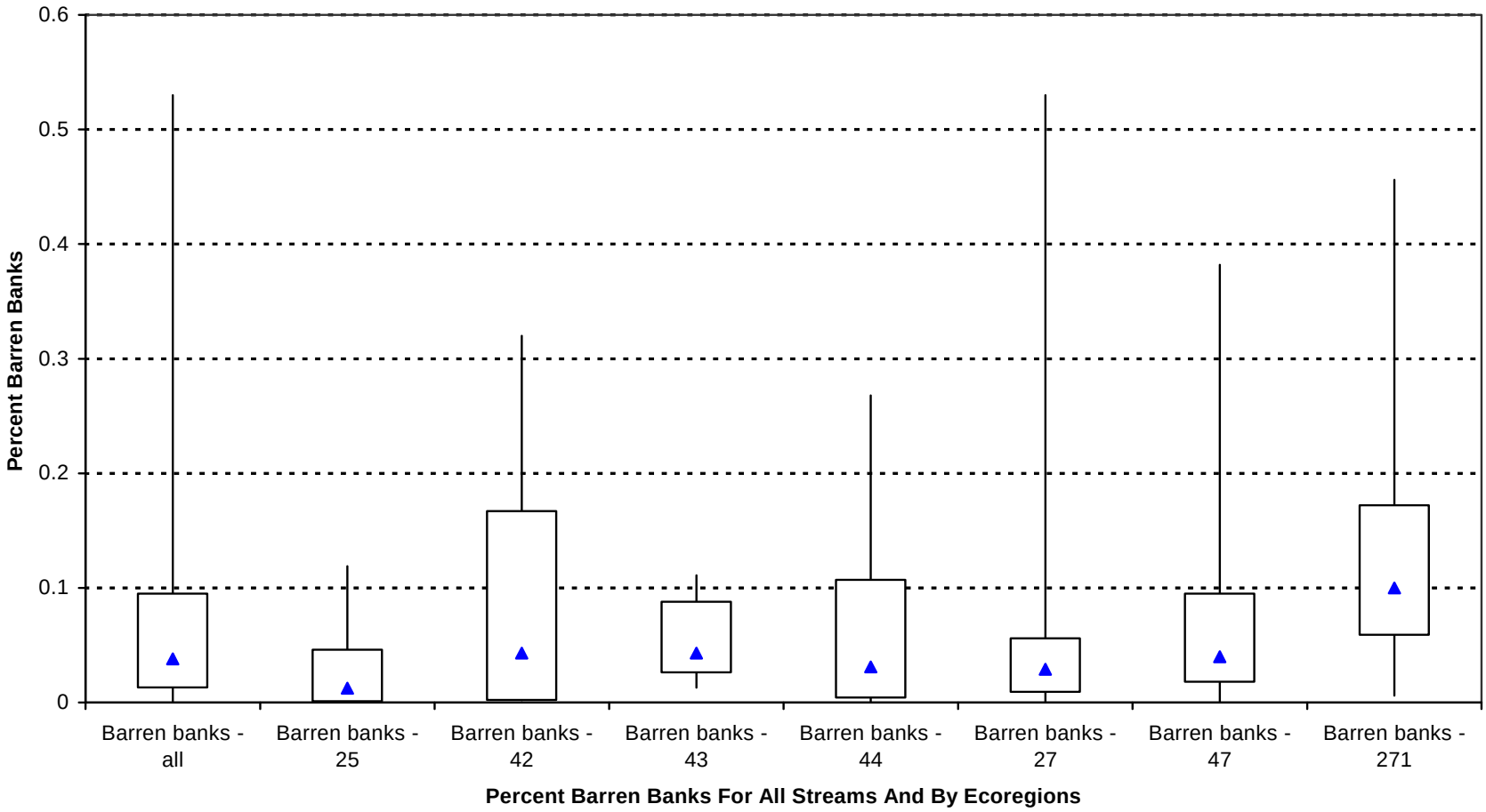


Figure 28. Distribution Of Conductivity For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

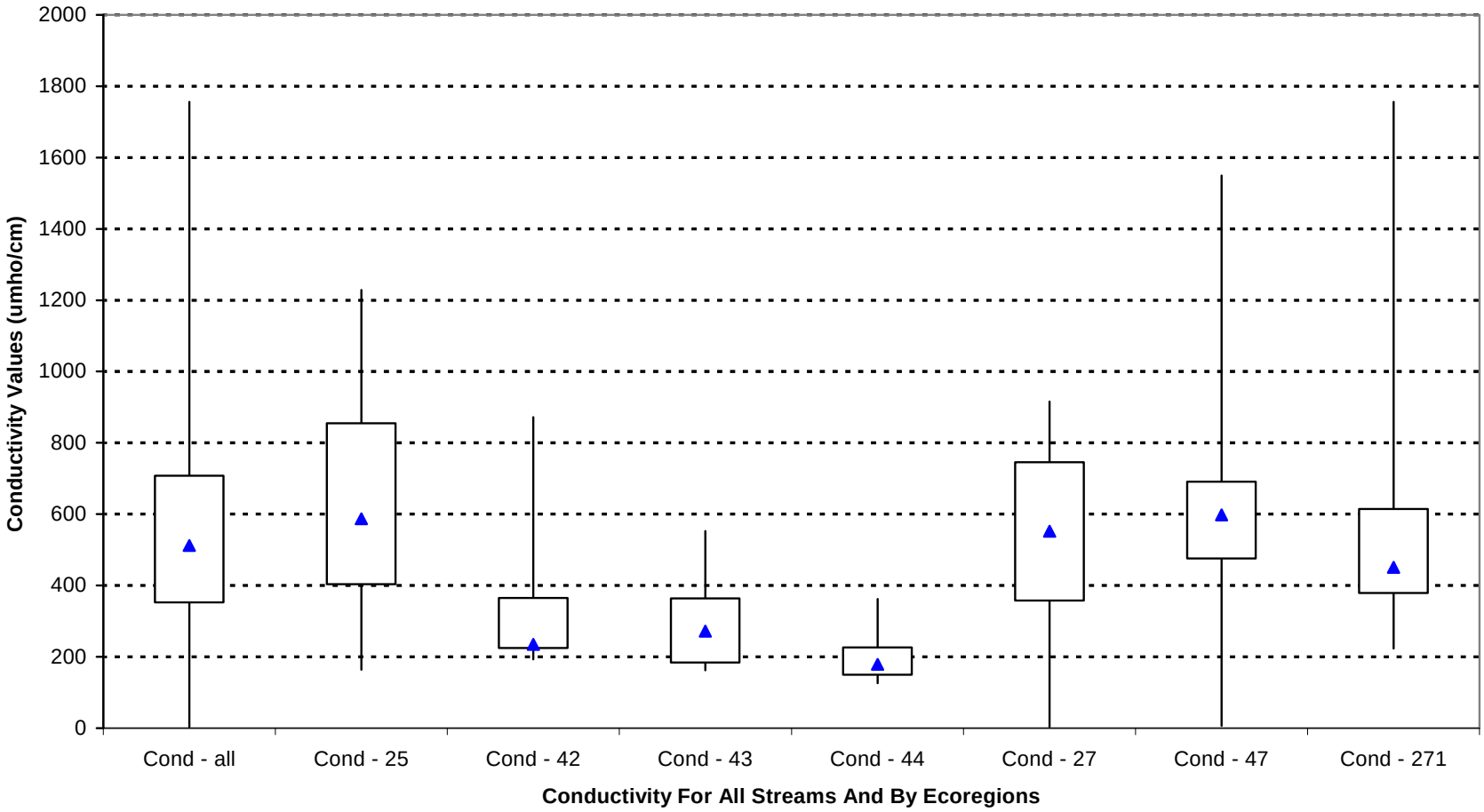


Figure 29. Distribution of Dissolved Oxygen For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

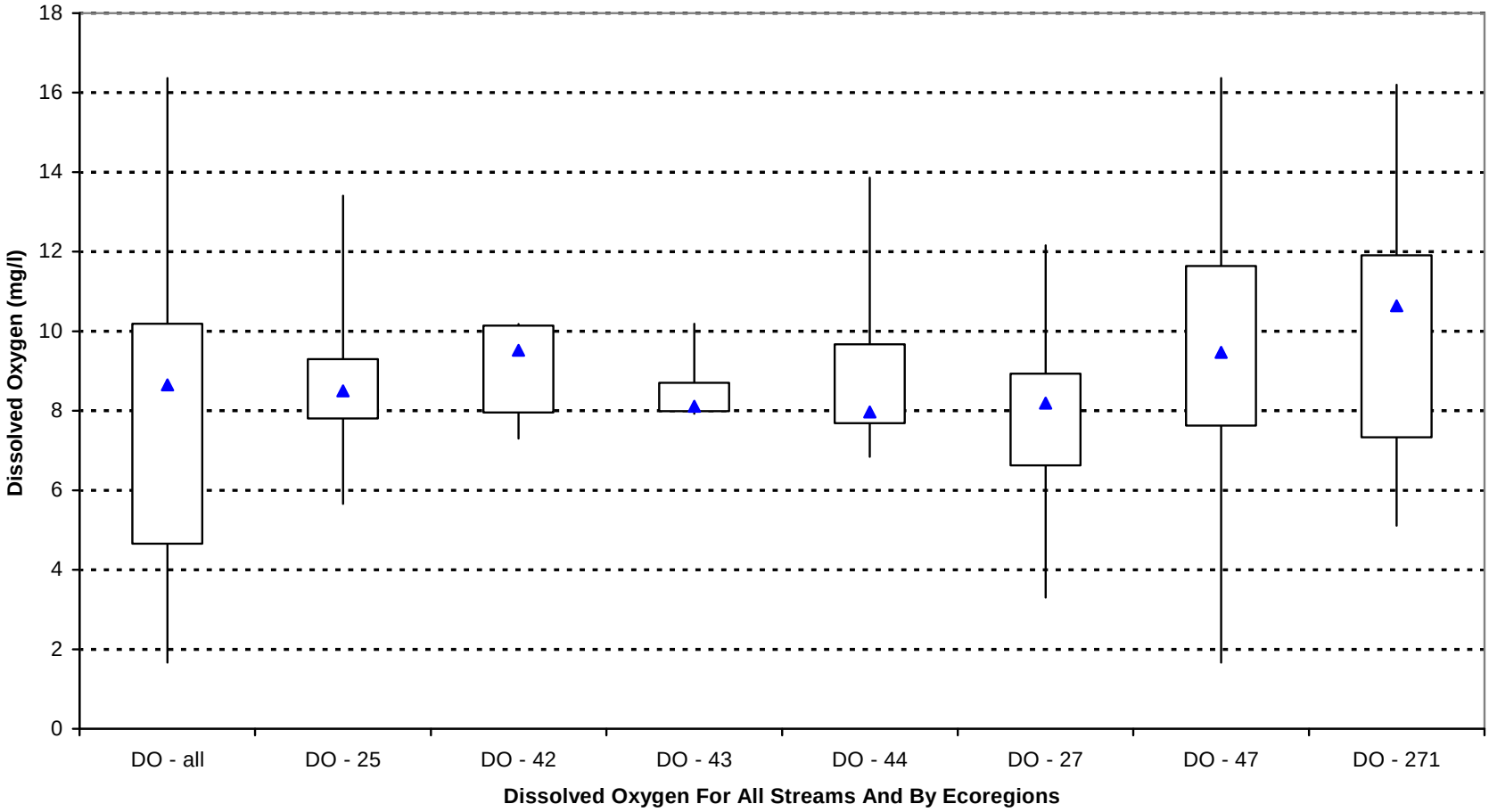


Figure 30. Distribution Of pH For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

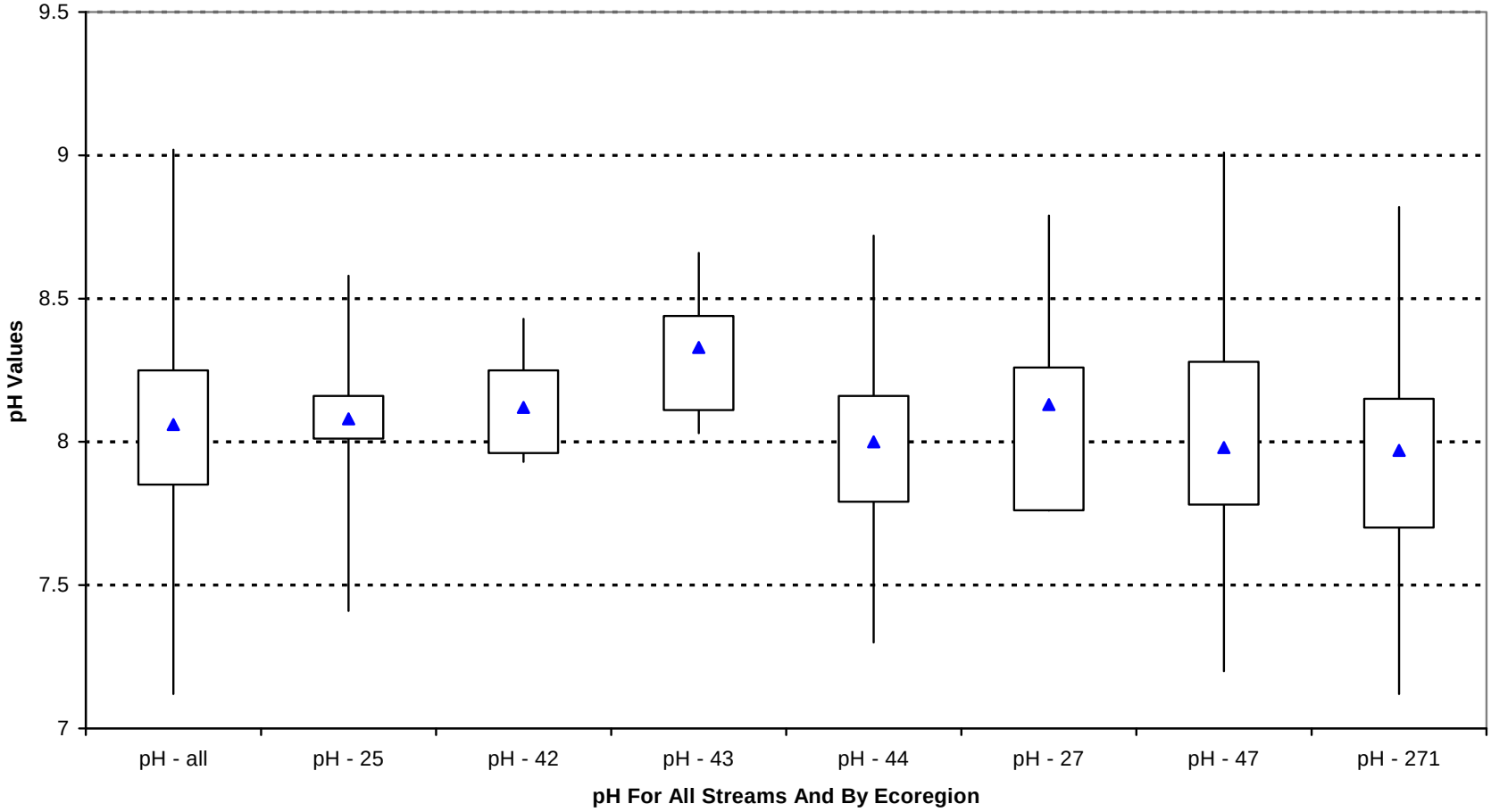


Figure 31. Distribution Of Stream Discharge For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

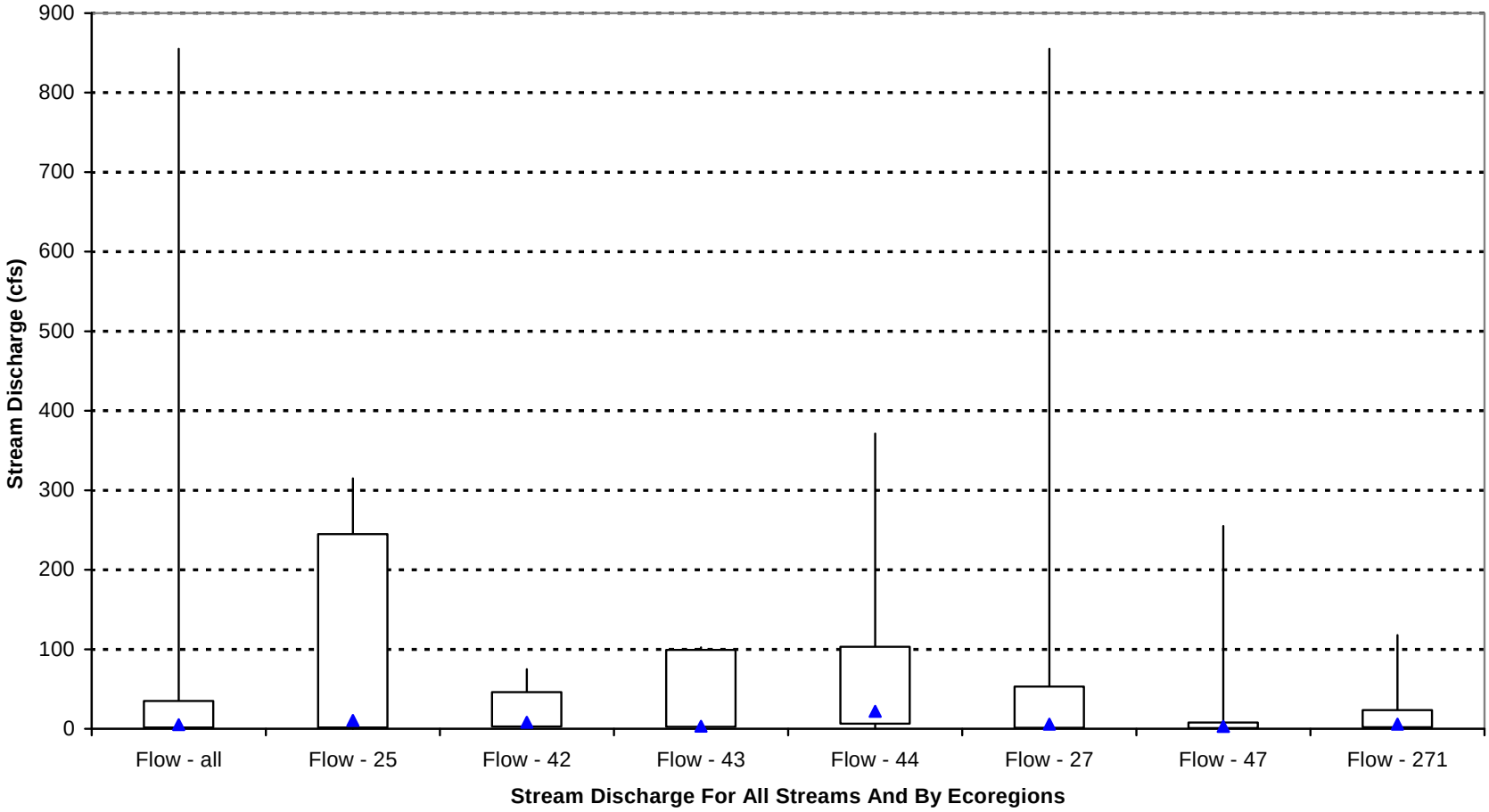


Figure 32. Distribution of Turbidity For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

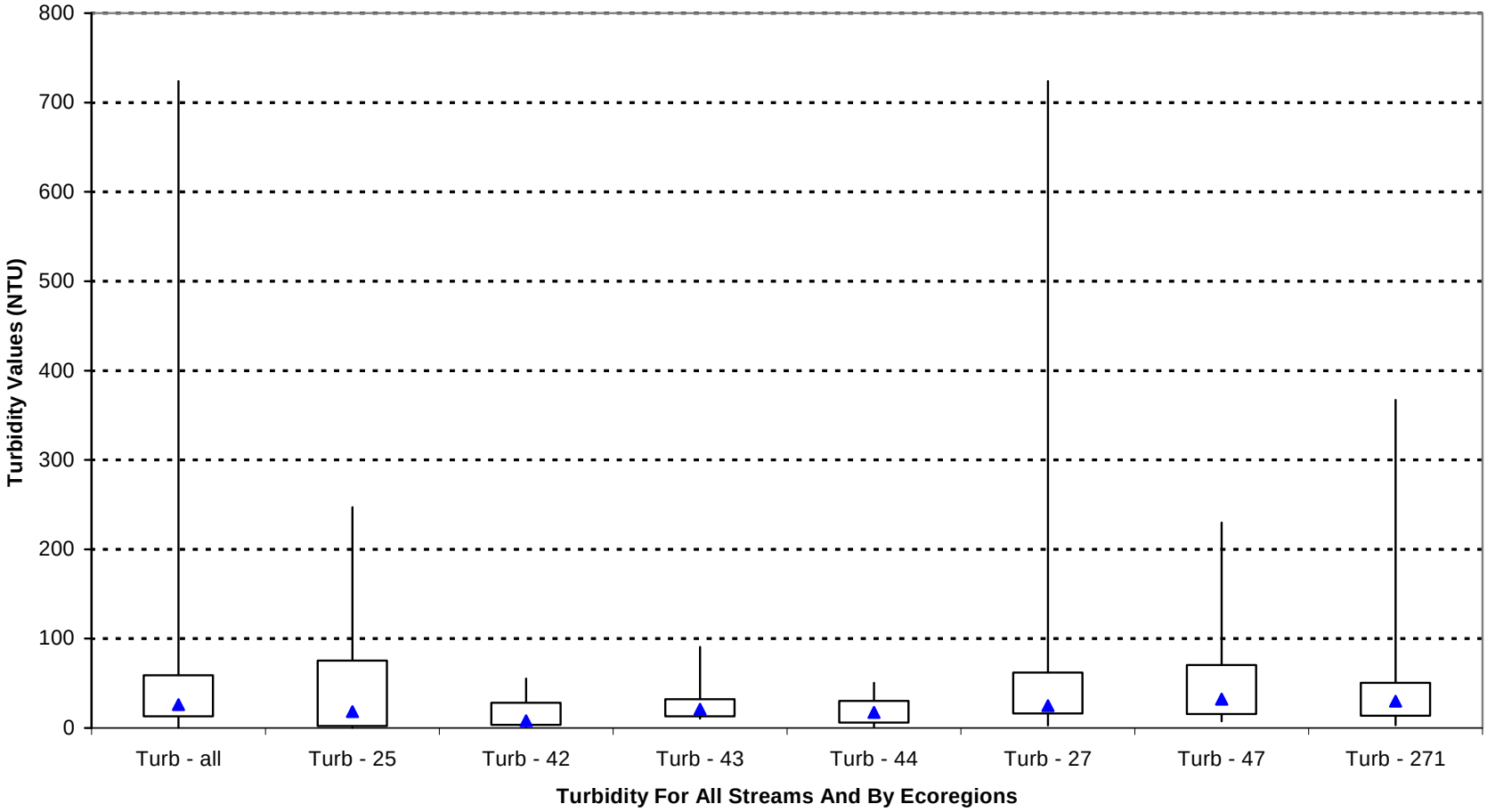


Figure 33. Distribution Of Temperatures For All Streams And By Ecoregions For The Nebraska Biological Monitoring Program, 2004-2008

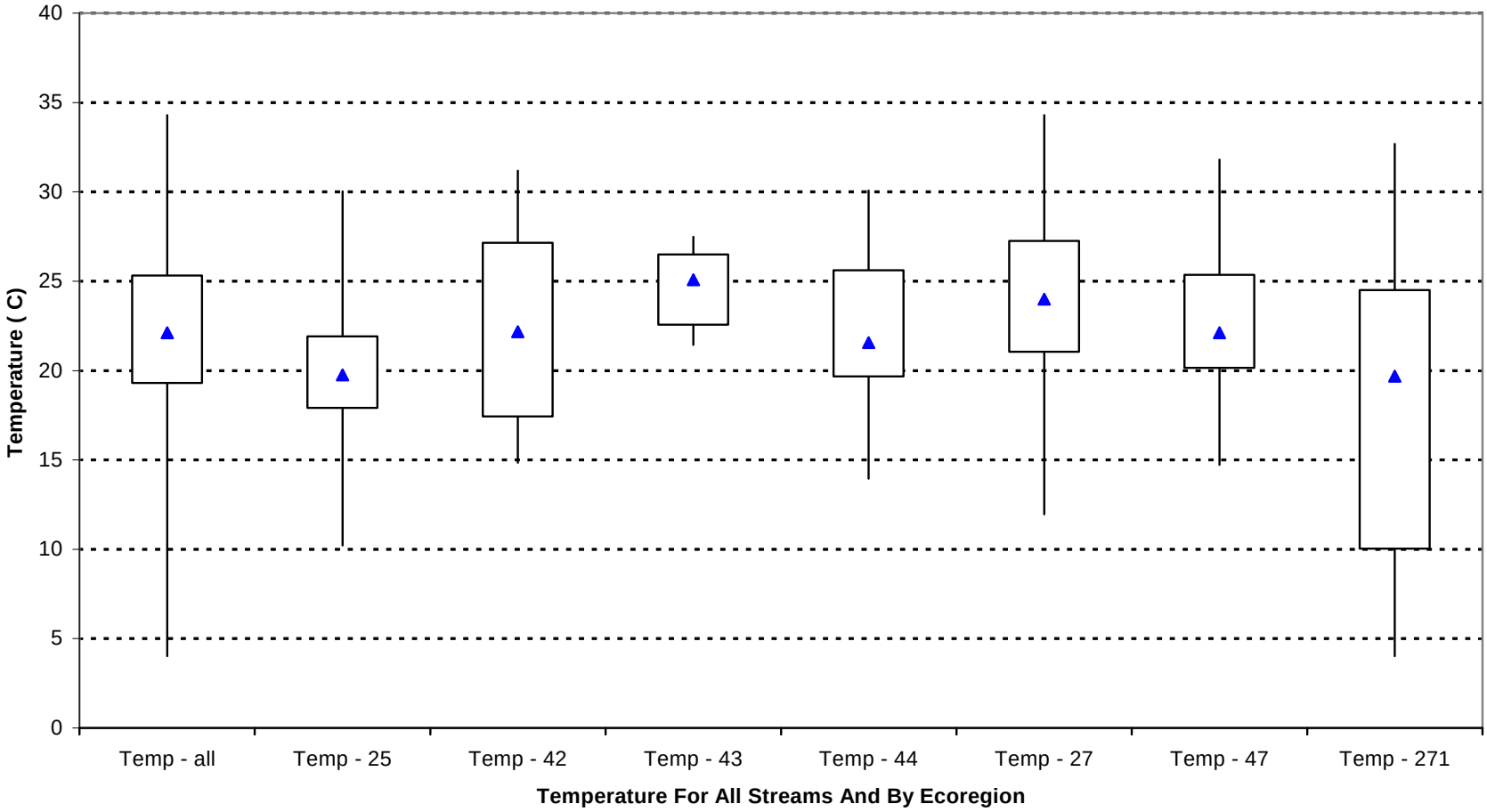
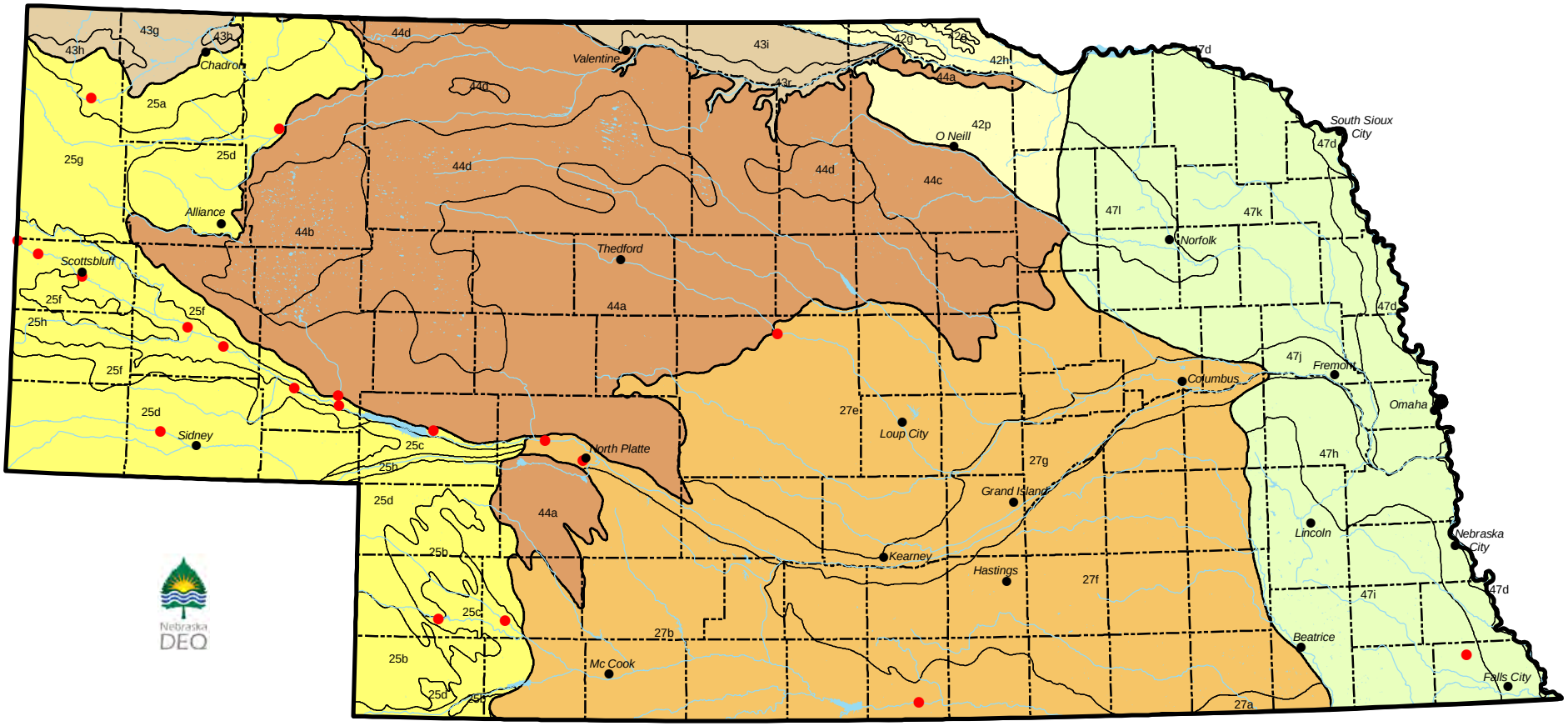


Figure 34. Distribution Of "Excellent" Stream Ratings For The Ambient Biological Monitoring Program, 2004-2008



June 2010

Nebraska Ecoregions

25 - Western High Plains
- 25a - Pine Ridge Escarpment
- 25b - Rolling Sand Plains
- 25c - Moderate Relief Rangeland
- 25d - Flat to Rolling Cropland
- 25f - Scotts Bluff and Wildcat Hills
- 25g - Sandy and Silty Tablelands
- 25h - North and South Platte Valley and Terraces

27 - Central Great Plains
- 27a - Smoky Hills
- 27b - Rolling Hills and Breaks
- 27e - Central Nebraska Loess Plains
- 27f - Rainwater Basin Plains
- 27g - Platte River Valley

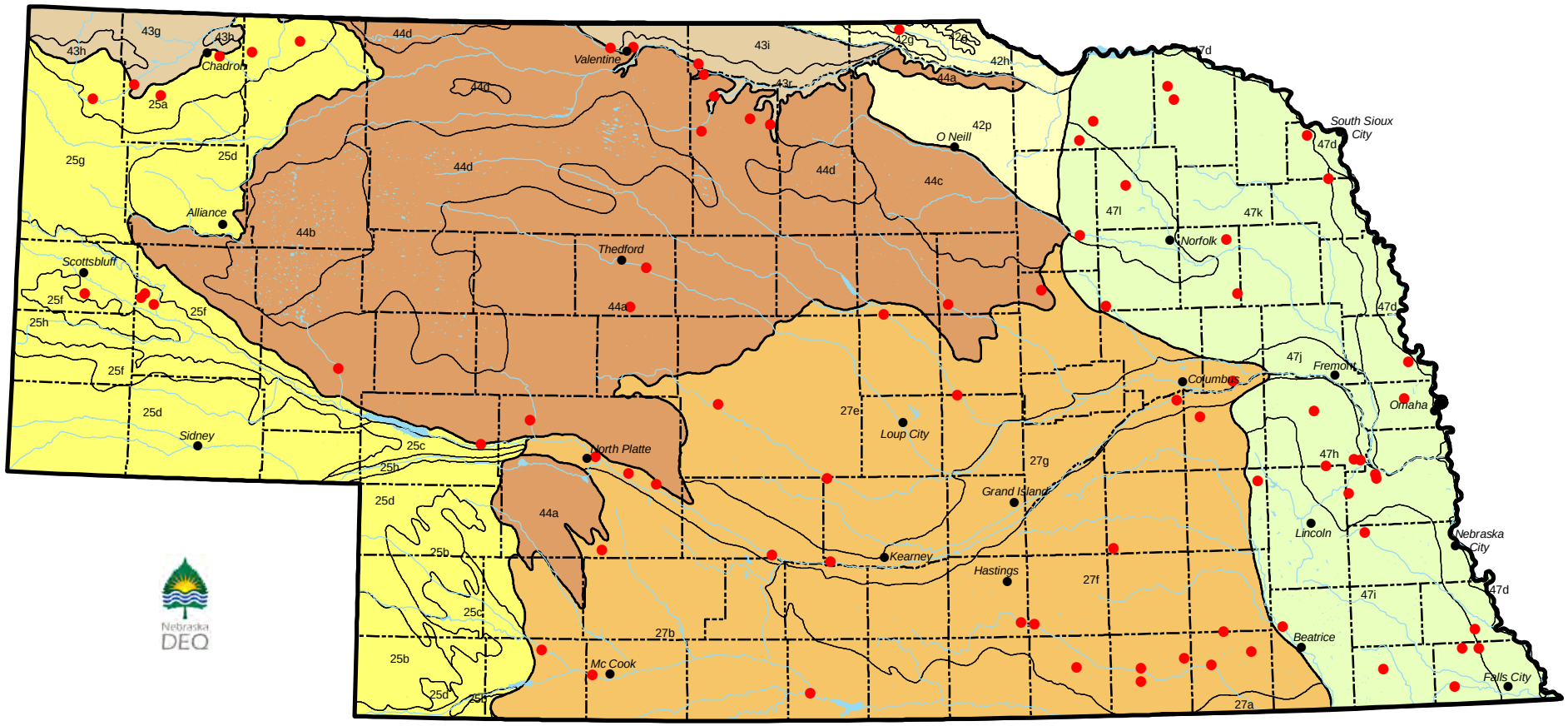
42 - Northwestern Glaciated Plains
- 42g - Ponca Plains
- 42h - Southern River Breaks
- 42p - Holt Tablelands

43 - Northwestern Great Plains
- 43g - Semiarid Pierre Shale Plains
- 43h - White River Badlands
- 43i - Keya Paha Tablelands
- 43r - Niobrara River Breaks

44 - Nebraska Sand Hills
- 44a - Sand Hills
- 44b - Alkaline Lakes Area
- 44c - Wet Meadow and Marsh Plains
- 44d - Lakes Area

47 - Western Corn Belt Plains
- 47d - Missouri Alluvial Plain
- 47h - Nebraska/Kansas Loess Hills
- 47i - Loess and Glacial Drift Hills
- 47k - Northeastern Nebraska Loess Hills
- 47l - Transitional Sandy Plain

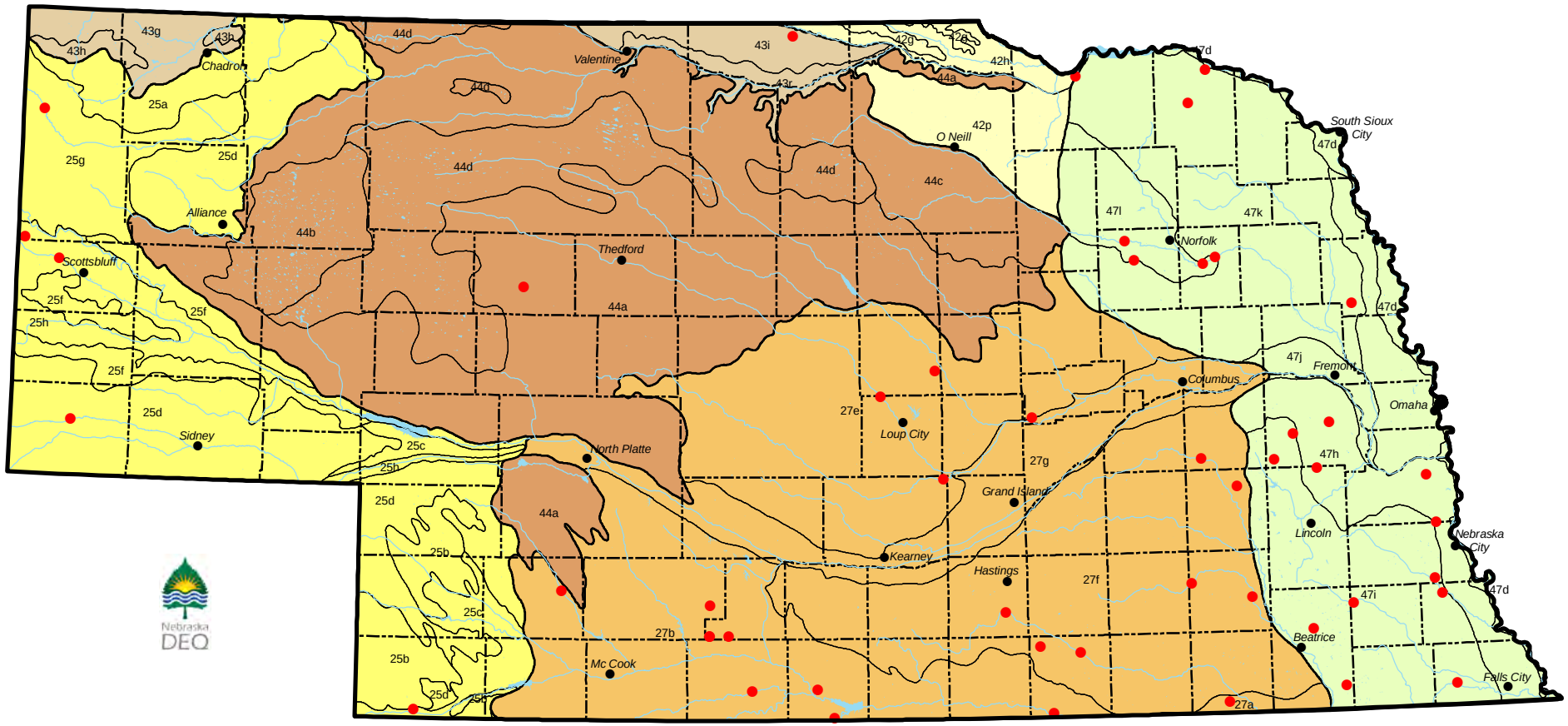
Figure 35. Distribution Of "Good" Stream Ratings For The Ambient Biological Monitoring Program, 2004-2008



Nebraska Ecoregions

- 25 - Western High Plains
  - 25a - Pine Ridge Escarpment
  - 25b - Rolling Sand Plains
  - 25c - Moderate Relief Rangeland
  - 25d - Flat to Rolling Cropland
  - 25f - Scotts Bluff and Wildcat Hills
  - 25g - Sandy and Silty Tablelands
  - 25h - North and South Platte Valley and Terraces
- 27 - Central Great Plains
  - 27a - Smoky Hills
  - 27b - Rolling Hills and Breaks
  - 27e - Central Nebraska Loess Plains
  - 27f - Rainwater Basin Plains
  - 27g - Platte River Valley
- 42 - Northwestern Glaciated Plains
  - 42g - Ponca Plains
  - 42h - Southern River Breaks
  - 42p - Holt Tablelands
- 43 - Northwestern Great Plains
  - 43g - Semiarid Pierre Shale Plains
  - 43h - White River Badlands
  - 43i - Keya Paha Tablelands
  - 43r - Niobrara River Breaks
- 44 - Nebraska Sand Hills
  - 44a - Sand Hills
  - 44b - Alkaline Lakes Area
  - 44c - Wet Meadow and Marsh Plains
  - 44d - Lakes Area
- 47 - Western Corn Belt Plains
  - 47d - Missouri Alluvial Plain
  - 47h - Nebraska/Kansas Loess Hills
  - 47i - Loess and Glacial Drift Hills
  - 47k - Northeastern Nebraska Loess Hills
  - 47l - Transitional Sandy Plain

Figure 36. Distribution Of "Fair" Stream Ratings For The Ambient Biological Monitoring Program, 2004-2008



Nebraska Ecoregions

25 - Western High Plains
- 25a - Pine Ridge Escarpment
- 25b - Rolling Sand Plains
- 25c - Moderate Relief Rangeland
- 25d - Flat to Rolling Cropland
- 25f - Scotts Bluff and Wildcat Hills
- 25g - Sandy and Silty Tablelands
- 25h - North and South Platte Valley and Terraces

27 - Central Great Plains
- 27a - Smoky Hills
- 27b - Rolling Hills and Breaks
- 27e - Central Nebraska Loess Plains
- 27f - Rainwater Basin Plains
- 27g - Platte River Valley

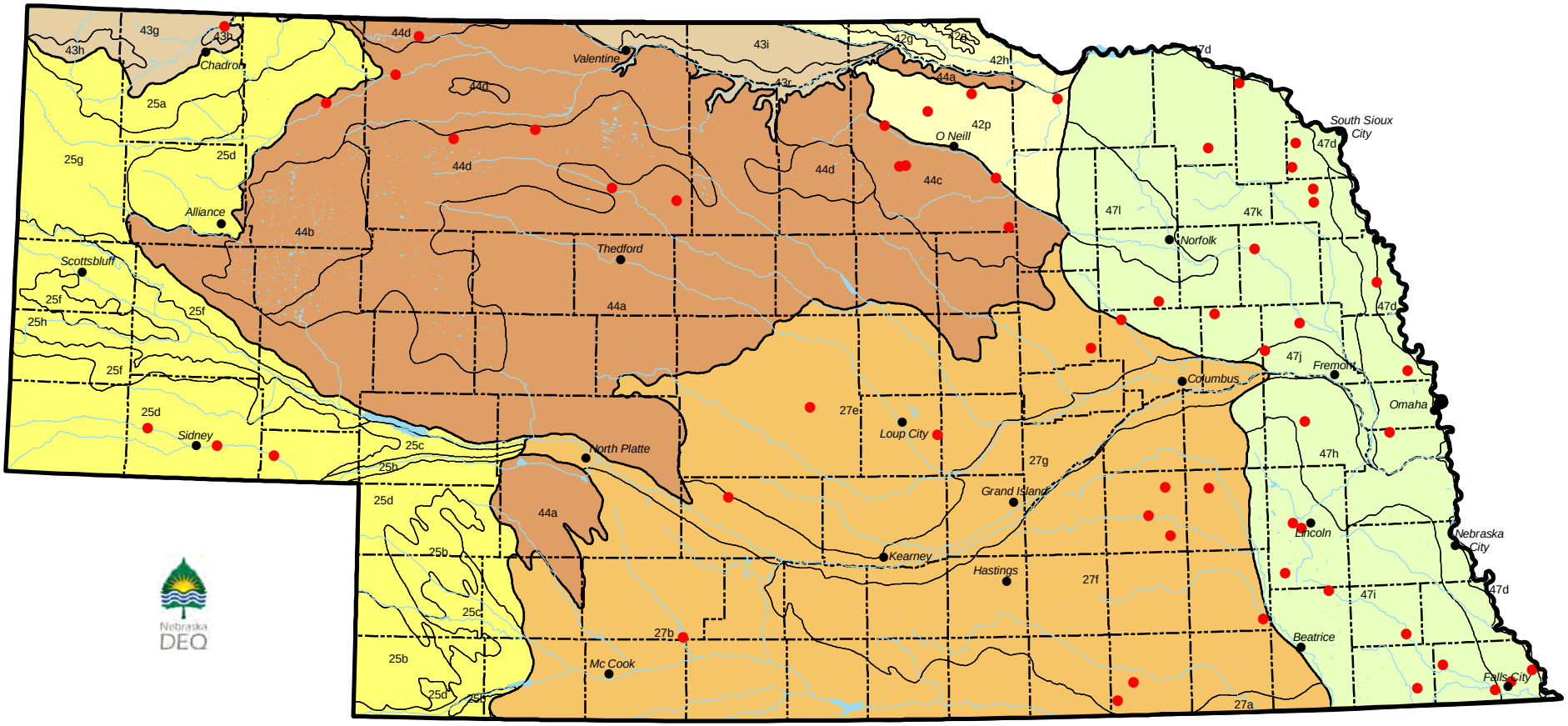
42 - Northwestern Glaciated Plains
- 42g - Ponca Plains
- 42h - Southern River Breaks
- 42p - Holt Tablelands

43 - Northwestern Great Plains
- 43g - Semiarid Pierre Shale Plains
- 43h - White River Badlands
- 43i - Keya Paha Tablelands
- 43r - Niobrara River Breaks

44 - Nebraska Sand Hills
- 44a - Sand Hills
- 44b - Alkaline Lakes Area
- 44c - Wet Meadow and Marsh Plains
- 44d - Lakes Area

47 - Western Corn Belt Plains
- 47d - Missouri Alluvial Plain
- 47h - Nebraska/Kansas Loess Hills
- 47i - Loess and Glacial Drift Hills
- 47k - Northeastern Nebraska Loess Hills
- 47l - Transitional Sandy Plain

Figure 37. Distribution Of "Poor" Stream Ratings For The Ambient Biological Monitoring Program, 2004-2008



Nebraska Ecoregions

25 - Western High Plains
- 25a - Pine Ridge Escarpment
- 25b - Rolling Sand Plains
- 25c - Moderate Relief Rangeland
- 25d - Flat to Rolling Cropland
- 25f - Scotts Bluff and Wildcat Hills
- 25g - Sandy and Silty Tablelands
- 25h - North and South Platte Valley and Terraces

27 - Central Great Plains
- 27a - Smoky Hills
- 27b - Rolling Hills and Breaks
- 27e - Central Nebraska Loess Plains
- 27f - Rainwater Basin Plains
- 27g - Platte River Valley

42 - Northwestern Glaciated Plains
- 42g - Ponca Plains
- 42h - Southern River Breaks
- 42p - Holt Tablelands

43 - Northwestern Great Plains
- 43g - Semiarid Pierre Shale Plains
- 43h - White River Badlands
- 43i - Keya Paha Tablelands
- 43r - Niobrara River Breaks

44 - Nebraska Sand Hills
- 44a - Sand Hills
- 44b - Alkaline Lakes Area
- 44c - Wet Meadow and Marsh Plains
- 44d - Lakes Area

47 - Western Corn Belt Plains
- 47d - Missouri Alluvial Plain
- 47h - Nebraska/Kansas Loess Hills
- 47i - Loess and Glacial Drift Hills
- 47k - Northeastern Nebraska Loess Hills
- 47l - Transitional Sandy Plain

Table 1. Nebraska Stream Biological Monitoring Program Stations, 2004-2008.

NDEQ_ID	STORET	STRMNAME	STR_SEG	ORDER	FLOW CLASS	HUC	ECOREG	STR CLASS	LAT_DD	LONG_DD
LP1153	009560	Pawnee Creek	LP1.11600	1	2	10200202	47	WB	40.981703	-96.287152
NE2185	009810	Lores Branch	NE2.12110	1	1	10240007	47	WA	40.073176	-96.106752
LP1023	010087	Pawnee Creek	LP1.11500	2	2	10200202	47	WB	41.000045	-96.290683
NE3193	010112	Indian Creek	NE3.10800	1	2	10240006	47	WA	40.317006	-95.769987
MP2057	010150	Platte River	MP2.2000	5	9	10200101	27	WA	40.712830	-99.717141
SP1031	010165	South Platte River	SP1.2000	4	8	10190018	27	WA	41.115270	-100.781300
BB1126	BB1126	Wolf Creek	BB1.10610	1	1	10270202	47	WB	40.10285	-96.50353
BB1127	BB1127	Soap Creek	BB1.12000	1	1	10270202	47	WB	40.36422	-96.84698
BB1128	BB1128	Pierce Creek	BB1.11410	1	1	10270202	47	WB	40.34947	-96.6754
BB1129	BB1129	Cub Creek	BB1.11900	1	2	10270202	47	WA	40.25908	-97.02878
BB2130	BB2130	Turkey Creek	BB2.20000	2	3	10270204	27	WA	40.49504	-97.01337
BB2131	BB2131	Turkey Creek	BB2.30000	1	2	10270204	27	WB	40.56098	-97.35066
BB2132	BB2132	South Fork Swan Creek	BB2.10110	1	1	10270204	27	WB	40.34996	-97.18164
BB2133	BB2133	Turkey Creek	BB2.10000	3	5	10270204	27	WA	40.40036	-96.95457
BB3134	BB3134	Beaver Creek	BB3.10400	1	2	10270202	27	WB	40.85604	-97.5822
BB3135	BB3135	West Fork Big Blue River	BB3.30000	1	3	10270203	27	WB	40.72161	-97.78784
BB3136	BB3136	West Fork Big Blue River	BB3.20000	2	5	10270203	27	WA	40.76963	-97.46069
BB4137	BB4137	Plum Creek	BB4.20200	1	2	10270202	27	WB	40.97388	-97.07767
BB4138	BB4138	Big Blue River	BB4.40000	1	2	10270201	27	WB	41.09753	-97.2767
BB4139	BB4139	Lincoln Creek	BB4.20800	1	4	10270201	27	WB	40.965	-97.2353
BB4140	BB4140	Lincoln Creek	BB4.20900	1	2	10270201	27	WA	40.97591	-97.48239
EL1113	EL1113	Maple Creek	EL1.10900	3	2	10220003	47	WA	41.550640	-96.889620
EL1115	EL1115	Pebble Creek	EL1.20100	3	4	10220003	47	WA	41.659960	-96.687100
EL1116	EL1116	Bell Creek	EL1.10700	1	2	10220003	47	WB	41.741710	-96.386740
EL1117	EL1117	W. Fork Maple Creek	EL1.10940	1	2	10220003	47	WB	41.714760	-97.169160
EL1118	EL1118	E. Fork Maple Creek	EL1.10920	1	2	10220003	47	WB	41.799890	-97.038540
EL1119	EL1119	Elkhorn River	EL1.20000	4	7	10220003	47	WA	41.934256	-97.230469
EL1120	EL1120	Elkhorn River	EL1.20000	4	7	10220003	47	WA	41.959950	-97.158590
EL1121	EL1121	Humbug Creek	EL1.21300	2	2	10220003	47	WB	42.034210	-97.090120
EL1122	EL1122	Elkhorn River	EL1.20000	4	8	10220003	47	WA	41.985690	-96.928390
EL1123	EL1123	Union Creek	EL1.22100	1	1	10220003	47	WB	41.772450	-97.488380
EL2124	EL2124	Middle Logan Creek	EL2.40200	1	2	10220004	47	WB	42.427760	-97.174660
EL3125	EL3125	Dry Creek	EL3.20400	1	1	10220002	47	WB	42.277900	-97.663210

Table 1. continued

NDEQ_ID	STORET	STRMNAME	STR_SEG	ORDER	FLOW CLASS	HUC	ECOREG	STR CLASS	LAT_DD	LONG_DD
EL4126	EL4126	Battle Creek	EL4.10500	1	1	10220001	47	WA	41.957340	-97.625310
EL4126	EL4126	Battle Creek	EL4.10500	1	1	10220001	47	WA	41.957340	-97.625310
EL4127	EL4127	Elkhorn River	EL4.10000	3	7	10220001	47	WA	42.040830	-97.676150
EL4128	EL4128	Elkhorn River	EL4.10000	3	7	10220001	47	WA	42.070560	-97.934230
EL4129	EL4129	Clearwater Creek	EL4.20300	1	3	10220001	42	WA	42.108210	-98.338150
EL4130	EL4130	Elkhorn River	EL4.30000	2	5	10220001	42	WA	42.318863	-98.408415
EL4131	EL4131	Elkhorn River	EL4.40000	1	4	10220001	44	WA	42.551110	-99.048020
EL4132	EL4132	Holt Creek	EL4.30500	1	2	10220001	44	WA	42.376780	-98.965060
EL4133	EL4133	Holt Creek	EL4.30400	1	3	10220001	44	WA	42.378240	-98.926510
LB1117	LB1117	Dry Branch	LB1.10410	2	1	10270207	27	WA	40.04987	-97.15747
LB1131	LB1131	Little Blue River	LB1.10000	3	7	10270207	27	WA	40.20798	-97.25584
LB2118	LB2118	Little Blue River	LB2.10600	3	3	10270206	27	WA	40.45713	-98.40127
LB2119	LB2119	Spring Creek	LB2.20500	1	1	10270206	27	WB	40.06804	-97.78382
LB2120	LB2120	Liberty Creek	LB2.10500	1	1	10270206	27	WB	40.30774	-98.21144
LB2121	LB2121	Spring Creek	LB2.30000	2	3	10270206	27	WB	40.14672	-97.65091
LB2122	LB2122	Little Blue River	LB2.30000	2	4	10270206	27	WA	40.41296	-98.31555
LB2123	LB2123	Little Blue River	LB2.20000	2	5	10270206	27	WA	40.27876	-97.98517
LB2124	LB2124	Elk Creek	LB2.20200	1	1	10270206	27	WB	40.21139	-98.00955
LB2125	LB2125	Big Sandy Creek	LB2.10100	2	4	10270206	27	WA	40.24047	-97.40662
LB2126	LB2126	Litle Blue River	LB2.30000	2	5	10270206	27	WA	40.40492	-98.24066
LB2127	LB2127	Little Blue River	LB2.20000	2	6	10270206	27	WA	40.20354	-97.65078
LB2129	LB2129	Spring Creek	LB2.10500	2	2	10270206	27	WB	40.14254	-97.68977
LO1181	LO1181	Beaver Creek	LO1.30500	2	6	10210009	44	WA	41.58322	-97.88264
LO1182	LO1182	Cedar River	LO1.10700	2	7	10210010	44	WA	41.78371	-98.69833
LO1183	LO1183	Cottonwood Creek	LO1.10800	2	1	10210009	27	WB	41.29312	-98.23247
LO1184	LO1184	Beaver Creek	LO1.10800	2	5	10210009	27	WA	41.83672	-98.16334
LO2185	LO2185	Mira Creek	LO2.10400	2	2	10210007	27	WB	41.49834	-98.7802
LO2186	LO2186	North Loup River	LO2.10000	3	8	10210007	27	WA	41.74333	-99.07052
LO2187	LO2187	North Loup River	LO2.40000	2	7	10210006	44	CB	42.28779	-100.62661
LO2192	LO2192	North Loup River	LO2.10000	3	9	10210007	27	WA	41.39137	-98.65654
LO2200	LO2103B	Goose Creek	LO2.20200	1	6	10210006	44	CB	42.234058	-100.25298
LO3088	LO3088	Dismal River	LO3.50200	2	7	10210002	44	CB	41.77888	-100.52493
LO3165	LO3165	North Fork Dismal River (A)	LO3.50330	1	4	10210002	44	CB	41.86031	-101.13778
LO3189	LO3189	Middle Loup River	LO3.30000	3	7	10210003	27	WA	41.38931	-99.09247

Table 1. continued

NDEQ_ID	STORET	STRMNAME	STR_SEG	ORDER	FLOW CLASS	HUC	ECOREG	STR CLASS	LAT_DD	LONG_DD
LO3190	LO3190	Middle Loup River	LO3.60000	3	8	10210001	44	CB	41.9485	-100.43314
LO3191	LO3191	Victoria Creek	LO3.40400	1	2	10210003	27	CB	41.66166	-99.67656
LO3193	LO3193	Oak Creek	LO3.10400	1	2	10210003	27	WB	41.22252	-98.76669
LO4194	LO4194	South Loup River	LO4.30000	2	4	10210004	27	WA	41.36381	-100.02041
LO4195	LO4195	South Loup River	LO4.10000	3	7	10210004	27	WA	41.03254	-98.74066
LO4196	LO4196	Mud Creek	LO4.10200	1	2	10210004	27	WB	41.34499	-99.49126
LO4197	LO4197	Sourth Loup River	LO4.20000	2	7	10210004	27	WA	41.0421	-99.39917
LP1170	LP1170	Bachelor Br To Eight Mile Cr.	LP1.10110	2	2	10200202	47	WB	40.990110	-96.005070
LP1171	LP1171	Lost Creek	LP1.21100	3	3	10200201	27	WB	41.426140	-97.081340
LP1172	LP1172	Shell Creek	LP1.20800	4	2	10200201	27	WB	41.698350	-97.704600
LP1173	LP1173	Shell Creek	LP1.20800	4	2	10220001	47	WB	41.762100	-97.794800
LP2174	LP2174	Salt Creek	LP2.20000	4	3	10200203	47	WA	40.783260	-96.720240
LP2175	LP2175	Wahoo Creek	LP2.10100	5	5	10200203	47	WA	41.068120	-96.406970
LP2176	LP2176	Bates Branch	LP2.20612	3	2	10200203	47	WB	41.083410	-96.861640
LP2177	LP2177	Middle Creek	LP2.21000	3	2	10200203	47	WB	40.805380	-96.766280
LP2178	LP2178	Middle Oak Creek	LP2.20710	3	1	10200203	47	WB	40.989810	-96.959180
LP2179	LP2179	Cottonwood Creek	LP2.10210	3	1	10200203	47	WB	40.239860	-96.677090
LP2180	LP2180	Silver Creek	LP2.10140	3	2	10200203	47	WB	41.235920	-96.541950
LP2181	LP2181	Olive Branch Creek	LP2.40310	3	2	10200203	47	WB	40.592758	-96.821866
LP2182	LP2182	Rock Creek	LP2.11100	2	2	10200203	47	WB	41.040390	-96.620470
LP2183	LP2183	Clear Creek	LP2.10110	4	3	10200203	47	WA	41.062120	-96.370770
LP2184	LP2184	Sand Creek	LP2.10170	3	2	10200203	47	WB	41.284380	-96.625400
LP2185	LP2185	Dee Creek	LP2.10800	2	2	10200203	47	WB	40.925540	-96.445040
LP2186	LP2186	Wahoo Creek	LP2.10400	3	3	10200203	47	WB	41.189980	-96.748810
LP2187	LP2187	Rock Creek	LP2.11010	2	2	10200203	47	WB	41.045850	-96.569670
MP1003	MP1003	Clear Creek	MP1.10100	2	3	10200103	27	CB	41.350800	-97.403630
MP1063	MP1063	Prairie Creek	MP1.20100	1	1	10200103	27	WB	41.274430	-97.274430
MP2064	MP2064	Platte River	MP2.20000	5	5	10200102	27	WA	40.683500	-99.384570
MP2065	MP2065	Spring Creek	MP2.20300	1	1	10200101	27	WA	40.959090	-99.957380
MP2066	MP2066	Platte River	MP2.40000	5	7	10200101	27	WA	41.018270	-100.369100
MP2067	MP2067	Platte River	MP2.40000	5	8	10200101	25	WA	41.062080	-100.527680
MT1148	MT1148	S. Branch Papillion Creek	MT1.10240	1	1	10230006	47	WB	41.177930	-96.197750
MT1150	MT1150	Big Papillion Creek	MT1.10120	2	3	10230006	47	WA	41.321220	-96.109990
MT1151	MT1151	Long Creek	MT1.10800	1	1	10230006	47	WB	41.437600	-96.080810

Table 1. continued

NDEQ_ID	STORET	STRMNAME	STR_SEG	ORDER	FLOW CLASS	HUC	ECOREG	STR CLASS	LAT_DD	LONG_DD
MT1152	MT1152	Mill Creek	MT1.10700	2	2	10230006	47	WB	41.475582	-96.075718
MT1153	MT1153	Silver Creek	MT1.11510	1	2	10230001	47	WB	41.822100	-96.235760
MT1154	MT1154	Cow Creek	MT1.12171	1	2	10230001	47	WB	42.174614	-96.577792
MT1156	MT1156	North Omaha Creek	MT1.12150	2	3	10230001	47	WB	42.233560	-96.578190
MT1157	MT1157	Omaha Creek	MT1.12100	3	4	10230001	47	WB	42.278700	-96.487580
MT2158	MT2158	Elk Creek	MT2.10300	2	3	10170101	47	WB	42.330480	-96.694550
MT2159	MT2159	Elk Creek	MT2.10300	2	4	10170101	47	WB	42.433725	-96.667377
MT2160	MT2160	Elk Creek	MT2.10200	3	4	10170101	47	WB	42.466230	-96.602570
MT2161	MT2161	Lime Creek	MT2.11000	2	3	10170101	47	WB	42.700170	-96.984640
MT2162	MT2162	West Bow Creek	MT2.11310	2	4	10170101	47	WB	42.763090	-97.183200
MT2163	MT2163	Unnamed Trib. Norwegian Bow Creek	MT2.11521	1	1	10170101	47	WB	42.624120	-97.287700
MT2164	MT2164	Norwegian Bow Creek	MT2.11520	2	2	10170101	47	WB	42.642300	-97.368350
MT2165	MT2165	West Bow Creek	MT2.11320	1	2	10170101	47	WB	42.699030	-97.401400
MT2166	MT2166	Little Bazile Creek	MT2.12510	2	4	10170101	47	WB	42.555470	-97.842420
MT2167	MT2167	Unnamed Trib. Bazile Creek	MT2.12620	1	1	10170101	47	WB	42.477912	-97.923554
MT2168	MT2168	Bazile Creek	MT2.12400	3	6	10170101	47	WA	42.752080	-97.937150
NE1196	NE1196	Big Slough	NE1.12831	2	2	10240001	47	WB	40.785320	-95.959020
NE1197	NE1197	Winnebago Creek	NE1.10200	1	1	10240005	47	WB	40.129590	-95.460930
NE2198	NE2198	Big Nemaha River	NE2.10000	4	6	10240008	47	WA	40.050470	-95.673070
NE2199	NE2199	Whiskey Run	NE2.10751	2	1	10240008	47	WB	40.208620	-95.823810
NE2200	NE2200	Long Branch Creek	NE2.12330	2	2	10240008	47	WA	40.171560	-95.959580
NE2201	NE2201	Unnamed Trib. Balls Branch	NE2.12135.12	1	1	10240007	47	WB	40.164870	-96.292290
NE2202	NE2202	Fourmile Creek	NE2.12000	2	1	10240007	47	WA	40.072250	-95.897450
NE2203	NE2203	Middle Branch Big Nemaha River	NE2.12600	3	2	10240008	47	WB	40.452960	-96.444790
NE2204	NE2204	Muddy Creek	NE2.10600	4	4	10240008	47	WA	40.086180	-95.581340
NE2205	NE2205	S. Fork Big Nemaha River	NE2.11900	5	4	10240007	47	WA	40.091590	-95.881670
NE2206	NE2206	N. Fork Big Nemaha River	NE2.12500	4	5	10240008	47	WA	40.311590	-96.155220
NE2207	NE2207	Mid. Br. Big Nemaha River	NE2.12610	2	2	10240008	47	WB	40.508360	-96.578320
NE2208	NE2208	Little Muddy Creek	NE2.10760	2	2	10240008	47	WB	40.234900	-95.847030
NE2209	NE2209	Hoosier Creek	NE2.10810	1	1	10240008	47	WB	40.232060	-95.754520
NE3210	NE3210	Hooper Creek	NE3.31200	2	3	10240006	47	WA	40.753460	-96.365230
NE3211	NE3211	Little Nemaha River	NE3.10000	4	5	10240006	47	WA	40.479480	-95.941680
NE3212	NE3212	Sand Creek	NE3.12700	2	1	10240006	47	WB	40.546440	-95.981460
NE3213	NE3213	Little Nemaha River	NE3.10000	4	6	10240006	47	WA	40.360460	95.761050

Table 1. continued

NDEQ_ID	STORET	STRMNAME	STR_SEG	ORDER	FLOW CLASS	HUC	ECOREG	STR CLASS	LAT_DD	LONG_DD
NI1499	NI1499	Ponca Creek	NI1.10200	2	2	10150001	42	WA	42.96481	-98.96042
NI2078	NI2078	Middle Branch Eagle Creek	NI2.11780	2	3	10150007	42	CB	42.61124	-98.79553
NI2500	NI2500	Verdigre Creek	NI2.10100	4	6	10150007	42	WA	42.65461	-98.04316
NI2501	NI2501	Spring Creek	NI2.11420	1	2	10150007	42	CB	42.68244	-98.54121
NI3180	NI3180	Muleshoe Creek	NI3.20700	1	3	10150004	43	CB	42.8237	-100.13512
NI3270	NI3270	Boardman Creek	NI3.22510	1	3	10150005	44	CA	42.532472	-101.076146
NI3503	NI3503	South Fork Plum Creek	NI3.13120	1	3	10150004	44	CB	42.5345	-100.11584
NI3504	NI3504	Gordon Creek	NI3.22300	2	3	10150004	44	CB	42.48717	-101.54627
NI3505	NI3505	Burton Creek	NI3.10220	1	2	10150006	43	CB	42.94031	-99.58337
NI3506	NI3506	Willow Creek	NI3.11300	1	2	10150004	43	CB	42.56332	-99.71669
NI3507	NI3507	Plum Creek	NI3.13000	2	7	10150004	43	CB	42.68235	-100.04048
NI3509	NI3509	Minnechaduza Creek	NI3.21900	2	4	10150004	43	CB	42.88925	-100.64964
NI3510	NI3510	Minnechaduza Creek (A)	NI3.21900	2	6	10150004	43	CB	42.89482	-100.51528
NI3511	NI3511	Bone Creek	NI3.12220	2	4	10150004	44	CB	42.58996	-99.83341
NI3520	NI3140A	Fairfield Creek	NI3.20500	1	4	10150004	43	CA	42.779402	-100.103318
NI4278	NI4278	Dry Creek	NI4.10110	2	1	10150003	44	CB	42.92499	-101.76128
NI4514	NI4514	Niobrara River - Near Merriman	NI4.10000	2	6	10150003	44	WA	42.75996	-101.89317
NI4515	NI4515	Niobrara River Near Hay Springs	NI4.10000	2	3	10150003	25	WA	42.51334	-102.55885
NI4516	NI4516	Niobrara River Near Harrison	NI4.50000	2	2	10150002	25	CB	42.56861	-103.93314
NI4517	NI4517	Rush Creek	NI4.10600	1	1	10150003	44	WB	42.63083	-102.29123
NP1114	NP1114	North Platte River	NP1.10000	5	8	10180014	27	WA	41.134800	-100.716180
NP1115	NP1115	North Platte River	NP1.20000	3	8	10180014	27	CB	41.198930	-100.999920
NP1116	NP1116	Birdwood Creek	NP1.20500	2	7	10180014	44	CB	41.288844	-101.089480
NP1117	NP1117	North Platte River	NP1.30000	5	8	10180014	27	CB	41.180580	-101.368400
NP1118	NP1118	Whitetail Creek	NP1.30900	2	5	10180014	25	CB	41.237330	-101.632800
NP2106	010158	Blue Creek	NP2.11200	1	2	10180009	44	CB	41.495030	-102.191600
NP2119	NP2119	Blue Creek	NP2.10800	1	6	10180009	44	CB	41.336100	-102.173160
NP2120	NP2120	Blue Creek	NP2.11000	1	6	10180009	25	CB	41.375900	-102.179630
NP2121	NP2121	North Platte River	NP2.10000	5	8	10180009	25	WA	41.402872	-102.431114
NP2122	NP2122	North Platte River	NP2.10000	5	8	10180009	25	WA	41.574830	-102.841730
NP3066	NP3066	North Platte River	NP3.50000	5	7	10180009	25	CB	41.990890	-104.045140
NP3098	NP3098	North Platte River	NP3.20000	5	7	10180009	25	CB	41.927320	-103.811230
NP3123	NP3123	North Platte River	NP3.10000	5	8	10180009	25	CB	41.651700	-103.050740

Table 1. continued

NDEQ ID	STORET	STRMNAME	STR_SEG	ORDER	FLOW CLASS	HUC	ECOREG	STR CLASS	LAT_DD	LONG_DD
NP3124	NP3124	Red Willow Creek	NP3.11000	1	4	10180009	25	CA	41.744870	-103.256190
NP3125	NP3125	Wildhorse Drain	NP3.10910	2	4	10180009	25	CB	41.772500	-103.330720
NP3126	NP3126	North Platte River	NP3.10000	5	8	10180009	25	CB	41.788800	-103.310360
NP3127	NP3127	North Platte River	NP3.10000	5	8	10180009	25	CB	41.851310	-103.667140
NP3128	NP3128	Gering Drain	NP3.12500	1	2	10180009	25	WB	41.781640	-103.656220
NP3130	NP3130	North Platte River - Morrill	NP3.30000	5	7	10180009	25	CB	41.938260	-103.922680
NP3131	NP3131	Sheep Creek	NP3.30400	2	5	10180009	25	CB	42.015080	-104.013250
RE1211	RE1211	Republican River	RE1.10000	4	5	10250016	27	WA	40.07555	-98.89345
RE1212	RE1212	Republican River	RE2.10500	4	4	10250016	27	WA	40.02079	-98.14239
RE2213	RE2213	Flag Creek	RE2.10300	1	1	10250009	27	WB	40.13324	-99.46333
RE2214	RE2214	Prairie Dog Creek	RE2.10000	1	1	10250015	27	WB	40.01332	-99.3674
RE2215	RE2215	Muddy Creek	RE1.40000	4	2	10250009	27	WA	40.36579	-99.95884
RE2216	RE2216	Sappa Creek	RE2.10600	3	1	10250011	27	WB	40.11951	-99.5023
RE2217	RE2217	Beaver Creek	RE2.10610	2	2	10250014	27	WB	40.126	-99.82742
RE2227	RE2227	Deer Creek	RE2.11600	1	1	10250009	27	WB	40.36255	-100.06705
RE3218	RE3218	Frenchman Creek	RE3.20200	3	5	10250005	27	CB	40.30197	-101.00963
RE3219	RE3219	Republican River	RE3.50000	3	1	10250002	25	WA	40.03826	-101.72272
RE3220	RE3220	Red Willow Creek	RE3.10600	1	2	10250007	27	WA	40.55829	-100.90228
RE3221	RE3221	Frenchman Creek	RE3.20400	2	2	10250005	25	CB	40.42776	-101.58501
RE3222	RE3222	Medicine Creek	RE3.10400	1	4	10250008	27	WA	40.73428	-100.67542
RE3223	RE3223	Muddy Creek	RE3.40100	1	2	10250009	27	WB	40.49728	-100.06518
RE3224	RE3224	Medicine Creek	RE3.10100	2	1	10250008	27	WB	40.35939	-100.21082
RE3225	RE3225	Republican River	RE3.20000	4	5	10250004	27	WA	40.19662	-100.7233
RE3226	RE3226	Stinking Water Creek	RE3.20220	2	3	10250006	25	CB	40.42577	-101.21146
SP2042	009740	Lodgepole Creek	SP2.40000	2	2	10190016	25	CB	41.240940	-103.706600
SP2043	SP2043	Lodgepole Creek	SP2.10000	2	1	10190016	25	WB	41.113490	-102.534170
SP2044	SP2044	Lodgepole Creek	SP2.10000	2	1	10190016	25	WB	41.145180	-102.860490
SP2045	SP2045	Lodgepole Creek	SP2.20000	2	1	10190016	25	CB	41.199970	-103.184840
SP2046	SP2046	Lodgepole Creek	SP2.20000	2	2	10190016	25	CB	41.211890	-103.257130
WH1071	WH1071	Beaver Creek	WH1.10900	1	2	10140201	25	CA	42.842531	-102.741461
WH1074	WH1074	Big Bordeaux Creek	WH1.11120	1	2	10140201	25	CB	42.8201	-102.92969
WH1075	WH1075	Larabee Creek	WH1.10420	2	2	10140201	25	CB	42.89199	-102.46235
WH1076	WH1076	White River, North Of Chadron	WH1.10000	3	2	10140201	43	CB	42.94683	-102.89674
WH1077	WH1077	White River - Crawford City Park	WH1.20000	3	4	10140201	25	CB	42.68655	-103.41788

Table 1. continued

NDEQ_ID	STORET	STRMNAME	STR_SEG	ORDER	FLOW CLASS	HUC	ECOREG	STR CLASS	LAT_DD	LONG_DD
WH1078	WH1078	White River, South Of Ft Rob Sp	WH1.40000	1	2	10140201	25	CB	42.61692	-103.65836
WH1080	WH1013A	West Ash Creek	WH1.11820	1	2	10140201	25	CB	42.64265	-103.26128

Table 2. Station characterists from the 2004-2008 Nebraska Stream Biological Monitoring Program, 2004-2008.

NDEQ_ID	STORET	STRMNAME	COUNTY	BASIN	Ecogroup	Flowgrp	AQVEGCLS	TROUTCLS	Sub_type
LP1153	009560	Pawnee Creek	Cass	Lower Platte	East	Medstrm	NONE	NT	hardbed
NE2185	009810	Lores Branch	Pawnee	Nemaha	East	Smlstrm	NONE	NT	sand
LP1023	010087	Pawnee Creek	Cass	Lower Platte	East	Medstrm	NONE	NT	siltclay
NE3193	010112	Indian Creek	Nemaha	Nemaha	East	Medstrm	NONE	NT	sand
MP2057	010150	Platte River	Dawson	Middle Platte	East	River	NONE	NT	sand
SP1031	010165	South Platte River	Lincoln	South Platte	Sandhills	River	NONE	NT	sand
BB1126	BB1126	Wolf Creek	Gage	Big Blue	East	Smlstrm	NONE	NT	sand
BB1127	BB1127	Soap Creek	Gage	Big Blue	East	Smlstrm	NONE	NT	siltclay
BB1128	BB1128	Pierce Creek	Gage	Big Blue	East	Smlstrm	NONE	NT	siltclay
BB1129	BB1129	Cub Creek	Jefferson	Big Blue	East	Medstrm	NONE	NT	siltclay
BB2130	BB2130	Turkey Creek	Saline	Big Blue	East	Medstrm	NONE	NT	sand
BB2131	BB2131	Turkey Creek	Saline	Big Blue	East	Medstrm	NONE	NT	sand
BB2132	BB2132	South Fork Swan Creek	Jefferson	Big Blue	East	Smlstrm	NONE	NT	siltclay
BB2133	BB2133	Turkey Creek	Saline	Big Blue	East	Lrgstrm	NONE	NT	sand
BB3134	BB3134	Beaver Creek	York	Big Blue	East	Medstrm	NONE	NT	siltclay
BB3135	BB3135	West Fork Big Blue River	York	Big Blue	East	Medstrm	NONE	NT	sand
BB3136	BB3136	West Fork Big Blue River	York	Big Blue	East	Lrgstrm	NONE	NT	sand
BB4137	BB4137	Plum Creek	Seward	Big Blue	East	Medstrm	SV	NT	siltclay
BB4138	BB4138	Big Blue River	Seward	Big Blue	East	Medstrm	NONE	NT	siltclay
BB4139	BB4139	Lincoln Creek	Seward	Big Blue	East	Medstrm	NONE	NT	sand
BB4140	BB4140	Lincoln Creek	York	Big Blue	East	Medstrm	NONE	NT	sand
EL1113	EL1113	Maple Creek	Dodge	Elkhorn	East	Medstrm	NONE	NT	sand
EL1115	EL1115	Pebble Creek	Dodge	Elkhorn	East	Lrgstrm	NONE	NT	sand
EL1116	EL1116	Bell Creek	Burt	Elkhorn	East	Medstrm	SV	NT	hardbed
EL1117	EL1117	W. Fork Maple Creek	Colfax	Elkhorn	East	Medstrm	NONE	NT	siltclay
EL1118	EL1118	E. Fork Maple Creek	Stanton	Elkhorn	East	Medstrm	NONE	NT	siltclay
EL1119	EL1119	Elkhorn River	Stanton	Elkhorn	East	River	NONE	NT	sand
EL1120	EL1120	Elkhorn River	Stanton	Elkhorn	East	River	NONE	NT	sand
EL1121	EL1121	Humbug Creek	Stanton	Elkhorn	East	Medstrm	SV	NT	siltclay
EL1122	EL1122	Elkhorn River	Cuming	Elkhorn	East	River	NONE	NT	sand
EL1123	EL1123	Union Creek	Madison	Elkhorn	East	Smlstrm	NONE	NT	siltclay
EL2124	EL2124	Middle Logan Creek	Cedar	Elkhorn	East	Medstrm	NONE	NT	sand
EL3125	EL3125	Dry Creek	Pierce	Elkhorn	East	Smlstrm	NONE	NT	sand

Table 2. continued.

NDEQ_ID	STORET	STRMNAME	COUNTY	BASIN	Ecogroup	Flowgrp	AQVEGCLS	TROUTCLS	sub_type
EL4126	EL4126	Battle Creek	Madison	Elkhorn	East	Smlstrm	NONE	NT	siltclay
EL4127	EL4127	Elkhorn River	Madison	Elkhorn	East	River	NONE	NT	sand
EL4128	EL4128	Elkhorn River	Antelope	Elkhorn	East	River	NONE	NT	sand
EL4129	EL4129	Clearwater Creek	Holt	Elkhorn	Sandhills	Medstrm	SV	NT	sand
EL4130	EL4130	Elkhorn River	Holt	Elkhorn	Sandhills	Lrgstrm	NONE	NT	sand
EL4131	EL4131	Elkhorn River	Holt	Elkhorn	Sandhills	Lrgstrm	SV	NT	sand
EL4132	EL4132	Holt Creek	Holt	Elkhorn	Sandhills	Medstrm	SV	NT	sand
EL4133	EL4133	Holt Creek	Holt	Elkhorn	Sandhills	Medstrm	SV	NT	sand
LB1117	LB1117	Dry Branch	Jefferson	Little Blue	East	Smlstrm	NONE	NT	gravel
LB1131	LB1131	Little Blue River	Jefferson	Little Blue	East	River	NONE	NT	sand
LB2118	LB2118	Little Blue River	Adams	Little Blue	East	Medstrm	NONE	NT	sand
LB2119	LB2119	Spring Creek	Thayer	Little Blue	East	Smlstrm	NONE	NT	siltclay
LB2120	LB2120	Liberty Creek	Nuckolls	Little Blue	East	Smlstrm	NONE	NT	siltclay
LB2121	LB2121	Spring Creek	Thayer	Little Blue	East	Medstrm	NONE	NT	sand
LB2122	LB2122	Little Blue River	Adams	Little Blue	East	Lrgstrm	NONE	NT	sand
LB2123	LB2123	Little Blue River	Nuckolls	Little Blue	East	Lrgstrm	NONE	NT	sand
LB2124	LB2124	Elk Creek	Nuckolls	Little Blue	East	Smlstrm	NONE	NT	siltclay
LB2125	LB2125	Big Sandy Creek	Thayer	Little Blue	East	Medstrm	NONE	NT	sand
LB2126	LB2126	Litle Blue River	Clay	Little Blue	East	Medstrm	NONE	NT	sand
LB2127	LB2127	Little Blue River	Thayer	Little Blue	East	Lrgstrm	NONE	NT	sand
LB2129	LB2129	Spring Creek	Thayer	Little Blue	East	Medstrm	NONE	NT	gravel
LO1181	LO1181	Beaver Creek	Boone	Loup	Sandhills	Lrgstrm	NONE	NT	siltclay
LO1182	LO1182	Cedar River	Wheeler	Loup	Sandhills	River	SV	NT	sand
LO1183	LO1183	Cottonwood Creek	Nance	Loup	East	Smlstrm	NONE	NT	siltclay
LO1184	LO1184	Beaver Creek	Boone	Loup	East	Lrgstrm	NONE	NT	sand
LO2185	LO2185	Mira Creek	Valley	Loup	East	Medstrm	NONE	NT	siltclay
LO2186	LO2186	North Loup River	Garfield	Loup	East	River	NONE	NT	sand
LO2187	LO2187	North Loup River	Cherry	Loup	Sandhills	River	SV	NT	sand
LO2192	LO2192	North Loup River	Howard	Loup	East	River	NONE	NT	sand
LO2200	LO2103B	Goose Creek	Cherry	Loup	Sandhills	Medstrm	NONE	NT	sand
LO3088	LO3088	Dismal River	Thomas	Loup	Sandhills	River	WC	NT	sand
LO3165	LO3165	North Fork Dismal River (A)	Hooker	Loup	Sandhills	Lrgstrm	SV	NT	sand
LO3189	LO3189	Middle Loup River	Sherman	Loup	East	River	NONE	NT	sand
LO3190	LO3190	Middle Loup River	Thomas	Loup	Sandhills	River	SV	NT	sand
LO3191	LO3191	Victoria Creek	Custer	Loup	East	Medstrm	NONE	NT	sand

Table 2. continued.

NDEQ_ID	STORET	STRMNAME	COUNTY	BASIN	Ecogroup	Flowgrp	AQVEGCLS	TROUTCLS	sub_type
LO3193	LO3193	Oak Creek	Sherman	Loup	East	Lrgstrm	NONE	NT	siltclay
LO4194	LO4194	South Loup River	Custer	Loup	East	Lrgstrm	NONE	NT	sand
LO4195	LO4195	South Loup River	Buffalo	Loup	East	River	NONE	NT	sand
LO4196	LO4196	Mud Creek	Buffalo	Loup	East	Medstrm	NONE	NT	siltclay
LO4197	LO4197	Sourth Loup River	Buffalo	Loup	East	River	NONE	NT	sand
LP1170	LP1170	Bachelor Br To Eight Mile Cr.	Cass	Lower Platte	East	Medstrm	NONE	NT	cobble
LP1171	LP1171	Lost Creek	Colfax	Lower Platte	East	Medstrm	SV	NT	sand
LP1172	LP1172	Shell Creek	Platte	Lower Platte	East	Smlstrm	NONE	NT	hardbed
LP1173	LP1173	Shell Creek	Madison	Lower Platte	East	Medstrm	NONE	NT	siltclay
LP2174	LP2174	Salt Creek	Lancaster	Lower Platte	East	Medstrm	NONE	NT	sand
LP2175	LP2175	Wahoo Creek	Saunders	Lower Platte	East	Lrgstrm	NONE	NT	sand
LP2176	LP2176	Bates Branch	Saunders	Lower Platte	East	Medstrm	NONE	NT	siltclay
LP2177	LP2177	Middle Creek	Lancaster	Lower Platte	East	Medstrm	SV	NT	siltclay
LP2178	LP2178	Middle Oak Creek	Seward	Lower Platte	East	Smlstrm	NONE	NT	siltclay
LP2179	LP2179	Cottonwood Creek	Saunders	Lower Platte	East	Smlstrm	NONE	NT	siltclay
LP2180	LP2180	Silver Creek	Saunders	Lower Platte	East	Medstrm	NONE	NT	siltclay
LP2181	LP2181	Olive Branch Creek	Lancaster	Lower Platte	East	Medstrm	NONE	NT	hardbed
LP2182	LP2182	Rock Creek	Lancaster	Lower Platte	East	Medstrm	NONE	NT	siltclay
LP2183	LP2183	Clear Creek	Saunders	Lower Platte	East	Medstrm	NONE	NT	sand
LP2184	LP2184	Sand Creek	Saunders	Lower Platte	East	Medstrm	NONE	NT	sand
LP2185	LP2185	Dee Creek	Cass	Lower Platte	East	Medstrm	NONE	NT	sand
LP2186	LP2186	Wahoo Creek	Saunders	Lower Platte	East	Medstrm	NONE	NT	siltclay
LP2187	LP2187	Rock Creek	Saunders	Lower Platte	East	Medstrm	NONE	SV	siltclay
MP1003	MP1003	Clear Creek	Polk	Middle Platte	East	Medstrm	WC	NT	sand
MP1063	MP1063	Prairie Creek	Merrick	Middle Platte	East	Smlstrm	NONE	NT	sand
MP2064	MP2064	Platte River	Buffalo	Middle Platte	East	Lrgstrm	NONE	NT	sand
MP2065	MP2065	Spring Creek	Dawson	Middle Platte	East	Smlstrm	NONE	NT	siltclay
MP2066	MP2066	Platte River	Lincoln	Middle Platte	East	River	NONE	NT	sand
MP2067	MP2067	Platte River	Lincoln	Middle Platte	East	River	NONE	NT	sand
MT1148	MT1148	S. Branch Papillion Creek	Sarpy	Missouri Tribs	East	Smlstrm	NONE	NT	siltclay
MT1150	MT1150	Big Papillion Creek	Douglas	Missouri Tribs	East	Medstrm	NONE	NT	siltclay
MT1151	MT1151	Long Creek	Washington	Missouri Tribs	East	Smlstrm	SV	NT	siltclay
MT1152	MT1152	Mill Creek	Washington	Missouri Tribs	East	Medstrm	NONE	NT	siltclay
MT1153	MT1153	Silver Creek	Burt	Missouri Tribs	East	Medstrm	NONE	NT	sand
MT1154	MT1154	Cow Creek	Thurston	Missouri Tribs	East	Medstrm	NONE	NT	hardbed

Table 2. continued.

NDEQ_ID	STORET	STRMNAME	COUNTY	BASIN	Ecogroup	Flowgrp	AQVEGCLS	TROUTCLS	sub_type
MT1156	MT1156	North Omaha Creek	Thurston	Missouri Tribs	East	Medstrm	NONE	NT	siltclay
MT1157	MT1157	Omaha Creek	Dakota	Missouri Tribs	East	Lrgstrm	NONE	NT	siltclay
MT2158	MT2158	Elk Creek	Dakota	Missouri Tribs	East	Medstrm	NONE	NT	siltclay
MT2159	MT2159	Elk Creek	Dakota	Missouri Tribs	East	Lrgstrm	NONE	NT	siltclay
MT2160	MT2160	Elk Creek	Dakota	Missouri Tribs	East	Lrgstrm	NONE	NT	gravel
MT2161	MT2161	Lime Creek	Dixon	Missouri Tribs	East	Lrgstrm	NONE	NT	siltclay
MT2162	MT2162	West Bow Creek	Cedar	Missouri Tribs	East	Lrgstrm	NONE	NT	sand
MT2163	MT2163	Unnamed Trib. Norwegian Bow Creek	Cedar	Missouri Tribs	East	Smlstrm	NONE	NT	sand
MT2164	MT2164	Norwegian Bow Creek	Cedar	Missouri Tribs	East	Medstrm	SV	NT	sand
MT2165	MT2165	West Bow Creek	Cedar	Missouri Tribs	East	Medstrm	NONE	NT	sand
MT2166	MT2166	Little Bazile Creek	Knox	Missouri Tribs	East	Lrgstrm	NONE	NT	sand
MT2167	MT2167	Unnamed Trib. Bazile Creek	Knox	Missouri Tribs	East	Smlstrm	NONE	NT	sand
MT2168	MT2168	Bazile Creek	Knox	Missouri Tribs	East	Lrgstrm	NONE	NT	sand
NE1196	NE1196	Big Slough	Cass	Nemaha	East	Medstrm	NONE	NT	siltclay
NE1197	NE1197	Winnebago Creek	Richardson	Nemaha	East	Smlstrm	SV	NT	siltclay
NE2198	NE2198	Big Nemaha River	Richardson	Nemaha	East	Lrgstrm	NONE	NT	sand
NE2199	NE2199	Whiskey Run	Richardson	Nemaha	East	Smlstrm	NONE	NT	sand
NE2200	NE2200	Long Branch Creek	Richardson	Nemaha	East	Medstrm	NONE	NT	sand
NE2201	NE2201	Unnamed Trib. Balls Branch	Pawnee	Nemaha	East	Smlstrm	SV	NT	siltclay
NE2202	NE2202	Fourmile Creek	Richardson	Nemaha	East	Smlstrm	SV	NT	sand
NE2203	NE2203	Middle Branch Big Nemaha River	Johnson	Nemaha	East	Medstrm	NONE	NT	sand
NE2204	NE2204	Muddy Creek	Richardson	Nemaha	East	Lrgstrm	NONE	NT	sand
NE2205	NE2205	S. Fork Big Nemaha River	Richardson	Nemaha	East	Lrgstrm	NONE	NT	sand
NE2206	NE2206	N. Fork Big Nemaha River	Johnson	Nemaha	East	Lrgstrm	NONE	NT	sand
NE2207	NE2207	Mid. Br. Big Nemaha River	Gage	Nemaha	East	Medstrm	NONE	NT	sand
NE2208	NE2208	Little Muddy Creek	Richardson	Nemaha	East	Medstrm	NONE	NT	sand
NE2209	NE2209	Hoosier Creek	Richardson	Nemaha	East	Smlstrm	NONE	NT	gravel
NE3210	NE3210	Hooper Creek	Otoe	Nemaha	East	Medstrm	NONE	NT	sand
NE3211	NE3211	Little Nemaha River	Nemaha	Nemaha	East	Lrgstrm	NONE	NT	sand
NE3212	NE3212	Sand Creek	Otoe	Nemaha	East	Smlstrm	NONE	NT	sand
NE3213	NE3213	Little Nemaha River	Nemaha	Nemaha	East	Lrgstrm	NONE	NT	sand
NI1499	NI1499	Ponca Creek	Boyd	Niobrara	Sandhills	Medstrm	NONE	NT	sand
NI2078	NI2078	Middle Branch Eagle Creek	Holt	Niobrara	Sandhills	Medstrm	SV	NT	sand
NI2500	NI2500	Verdigre Creek	Knox	Niobrara	Sandhills	Lrgstrm	NONE	NT	sand
NI2501	NI2501	Spring Creek	Holt	Niobrara	Sandhills	Medstrm	NONE	NT	sand

Table 2. continued.

NDEQ_ID	STORET	STRMNAME	COUNTY	BASIN	Ecogroup	Flowgrp	AQVEGCLS	TROUTCLS	sub_type
NI3180	NI3180	Muleshoe Creek	Keya Paha	Niobrara	Sandhills	Medstrm	NONE	NT	sand
NI3270	NI3270	Boardman Creek	Cherry	Niobrara	Sandhills	Medstrm	SV	NT	sand
NI3503	NI3503	South Fork Plum Creek	Brown	Niobrara	Sandhills	Medstrm	SV	FT	sand
NI3504	NI3504	Gordon Creek	Cherry	Niobrara	Sandhills	Medstrm	NONE	NT	sand
NI3505	NI3505	Burton Creek	Keya Paha	Niobrara	West	Medstrm	NONE	NT	sand
NI3506	NI3506	Willow Creek	Brown	Niobrara	West	Medstrm	NONE	AT	sand
NI3507	NI3507	Plum Creek	Brown	Niobrara	West	River	NONE	AT	sand
NI3509	NI3509	Minnechaduza Creek	Cherry	Niobrara	West	Lrgstrm	NONE	NT	sand
NI3510	NI3510	Minnechaduza Creek (A)	Cherry	Niobrara	West	Lrgstrm	SV	NT	gravel
NI3511	NI3511	Bone Creek	Brown	Niobrara	Sandhills	Lrgstrm	NONE	NT	sand
NI3520	NI3140A	Fairfield Creek	Brown	Niobrara	Sandhills	Medstrm	SV	AT	sand
NI4278	NI4278	Dry Creek	Cherry	Niobrara	Sandhills	Smlstrm	SV	NT	sand
NI4514	NI4514	Niobrara River - Near Merriman	Cherry	Niobrara	Sandhills	Lrgstrm	NONE	NT	sand
NI4515	NI4515	Niobrara River Near Hay Springs	Sheridan	Niobrara	West	Medstrm	SV	NT	sand
NI4516	NI4516	Niobrara River Near Harrison	Sioux	Niobrara	West	Medstrm	SV	FT	sand
NI4517	NI4517	Rush Creek	Sheridan	Niobrara	Sandhills	Smlstrm	SV	NT	sand
NP1114	NP1114	North Platte River	Lincoln	North Platte	East	River	NONE	NT	sand
NP1115	NP1115	North Platte River	Lincoln	North Platte	East	River	NONE	NT	sand
NP1116	NP1116	Birdwood Creek	Lincoln	North Platte	Sandhills	River	NONE	NT	sand
NP1117	NP1117	North Platte River	Keith	North Platte	East	River	NONE	NT	sand
NP1118	NP1118	Whitetail Creek	Keith	North Platte	West	Lrgstrm	SV	NT	sand
NP2106	010158	Blue Creek	Garden	North Platte	Sandhills	Lrgstrm	SV	NT	sand
NP2119	NP2119	Blue Creek	Garden	North Platte	Sandhills	Lrgstrm	SV	NT	sand
NP2120	NP2120	Blue Creek	Garden	North Platte	West	Lrgstrm	SV	NT	sand
NP2121	NP2121	North Platte River	Garden	North Platte	West	River	NONE	NT	sand
NP2122	NP2122	North Platte River	Morrill	North Platte	West	River	NONE	NT	sand
NP3066	NP3066	North Platte River	Scottsbluff	North Platte	West	River	NONE	NT	sand
NP3098	NP3098	North Platte River	Scottsbluff	North Platte	West	River	NONE	NT	sand
NP3123	NP3123	North Platte River	Morrill	North Platte	West	River	NONE	NT	sand
NP3124	NP3124	Red Willow Creek	Morrill	North Platte	West	Lrgstrm	NONE	AT	sand
NP3125	NP3125	Wildhorse Drain	Morrill	North Platte	West	Lrgstrm	NONE	AT	gravel
NP3126	NP3126	North Platte River	Scottsbluff	North Platte	West	River	NONE	NT	sand
NP3127	NP3127	North Platte River	Scottsbluff	North Platte	West	River	NONE	NT	sand
NP3128	NP3128	Gering Drain	Scottsbluff	North Platte	West	Medstrm	NONE	NT	sand
NP3130	NP3130	North Platte River - Morrill	Scottsbluff	North Platte	West	River	NONE	NT	gravel

Table 2. continued.

NDEQ_ID	STORET	STRMNAME	COUNTY	BASIN	Ecogroup	Flowgrp	AQVEGCLS	TROUTCLS	sub_type
NP3131	NP3131	Sheep Creek	Sioux	North Platte	West	Lrgstrm	SV	AT	sand
RE1211	RE1211	Republican River	Franklin	Republican	East	Medstrm	NONE	NT	sand
RE1212	RE1212	Republican River	Nuckolls	Republican	East	Medstrm	NONE	NT	siltclay
RE2213	RE2213	Flag Creek	Harlen	Republican	East	Smlstrm	NONE	NT	siltclay
RE2214	RE2214	Prairie Dog Creek	Harlen	Republican	East	Smlstrm	NONE	NT	siltclay
RE2215	RE2215	Muddy Creek	Gosper	Republican	East	Medstrm	NONE	NT	siltclay
RE2216	RE2216	Sappa Creek	Harlen	Republican	East	Smlstrm	NONE	NT	siltclay
RE2217	RE2217	Beaver Creek	Furnas	Republican	East	Medstrm	NONE	NT	sand
RE2227	RE2227	Deer Creek	Gosper	Republican	East	Smlstrm	NONE	NT	siltclay
RE3218	RE3218	Frenchman Creek	Hitchcock	Republican	East	Lrgstrm	NONE	NT	sand
RE3219	RE3219	Republican River	Dundy	Republican	East	Smlstrm	NONE	NT	sand
RE3220	RE3220	Red Willow Creek	Hayes	Republican	East	Medstrm	NONE	NT	siltclay
RE3221	RE3221	Frenchman Creek	Chase	Republican	East	Medstrm	NONE	NT	sand
RE3222	RE3222	Medicine Creek	Lincoln	Republican	East	Lrgstrm	SV	NT	siltclay
RE3223	RE3223	Muddy Creek	Frontier	Republican	East	Medstrm	NONE	NT	siltclay
RE3224	RE3224	Medicine Creek	Frontier	Republican	East	Smlstrm	NONE	NT	sand
RE3225	RE3225	Republican River	Red Willow	Republican	East	Lrgstrm	NONE	NT	sand
RE3226	RE3226	Stinking Water Creek	Hayes	Republican	West	Medstrm	NONE	NT	sand
SP2042	009740	Lodgepole Creek	Kimball	South Platte	West	Medstrm	SV	NT	siltclay
SP2043	SP2043	Lodgepole Creek	Deuel	South Platte	West	Smlstrm	EV	NT	siltclay
SP2044	SP2044	Lodgepole Creek	Cheyenne	South Platte	West	Smlstrm	NONE	NT	siltclay
SP2045	SP2045	Lodgepole Creek	Cheyenne	South Platte	West	Smlstrm	NONE	NT	siltclay
SP2046	SP2046	Lodgepole Creek	Cheyenne	South Platte	West	Medstrm	SV	NT	siltclay
WH1071	WH1071	Beaver Creek	Sheridan	WhiteHat	West	Smlstrm	SV	FT	sand
WH1074	WH1074	Big Bordeaux Creek	Dawes	WhiteHat	West	Medstrm	WC	AT	sand
WH1075	WH1075	Larabee Creek	Sheridan	WhiteHat	West	Medstrm	SV	NT	sand
WH1076	WH1076	White River, North Of Chadron	Dawes	WhiteHat	West	Medstrm	NONE	NT	gravel
WH1077	WH1077	White River - Crawford City Park	Dawes	WhiteHat	West	Lrgstrm	NONE	AT	sand
WH1078	WH1078	White River, South Of Ft Rob Sp	Sioux	WhiteHat	West	Medstrm	SV	AT	gravel
WH1080	WH1013A	West Ash Creek	Dawes	WhiteHat	West	Smlstrm	WC	FT	sand

Table 3. Stream types, flow, vegetation, water temperature, flow groupings, stream conditions, and definitions used during the Nebraska Stream Biological Monitoring Program, 2004-2008.

Levels	Conditions	Explanation
Level 1 - Temperature or Ecoregion		
	Cold	Watercress or trout present
	East	Ecoregions 27,45,46,47
	Sandhills	Ecoregion 44
	West	Ecoregions 25 and 43
Level 2 - Flow Type		
	Small Stream (SMLSTRM)	Flow Class 1 (<1 cfs)
	Medium Stream (MEDSTRM)	Flow Class 2-3 (1-10 cfs)
	Large Stream (LGESTRM)	Flow Class 4-6 (10-100 cfs)
	River (River)	Flow Class 7-9 (>100 cfs)
Level 3 - Vegetation Type		
	Watercress (WC)	Watercress common to abundant. Cold water only
	Submerged (SV)	Submerged vegetation common to abundant, no watercress
	Emergent (EV)	Emergent vegetation common to abundant, no watercress or submerged vegetation
	None (NV)	No aquatic vegetation common or abundant
Level 4A - (Cold water only) - Trout Presence		
	No Trout (NT)	No trout collected in standard fish sampling
	Few Trout (FT)	1 to 9 trout collected in standard fish sampling
	Abundant Trout (AT)	10 or more trout collected in standard fish sampling
Level 4B - (Warm water only) - Substrate Type		
	Gravel	Gravel or larger is the dominant substrate
	Sand	Sand is the dominant substrate
	Silt-Clay	Silt or unconsolidated clay is the dominant substrate
	Detritus	Detritus (unconsolidated organic matter) is the dominant substrate
	Hardbed	Bedrock or hardpan clay is the dominant substrate

Table 3. continued.

Flow Class	Estimated Base Flow (cfs)
1	>0.1 - <1.0
2	1 - 5
3	5 - 10
4	10 - 25
5	25 - 50
6	50 - 100
7	100 - 250
8	250 - 500
9	>500

Table 4. Fish taxa, number collected, and percent of total fish numbers collected during the Nebraska Stream Biological Monitoring Program, 2004-2008.

Common Name	Scientific Name	Family	Total Count	Percent
Red Shiner	Cyprinella lutrensis	Cyprinidae	34367	22.13
Sand Shiner	Notropis stramineus	Cyprinidae	34274	22.07
Fathead Minnow	Pimephales promelas	Cyprinidae	15363	9.89
Bigmouth Shiner	Notropis dorsalis	Cyprinidae	14974	9.64
Brassy Minnow	Hybognathus hankinsoni	Cyprinidae	8745	5.63
Creek Chub	Semotilus atromaculatus	Cyprinidae	8605	5.54
Central Stoneroller	Campostoma anomalum	Cyprinidae	6134	3.95
Channel Catfish	Ictalurus punctatus	Ictaluridae	4832	3.11
Green Sunfish	Lepomis cyanellus	Centrarchidae	4655	3.00
White Sucker	Catostomus commersoni	Catostomidae	3870	2.49
Longnose Dace	Rhinichthys cataractae	Cyprinidae	2314	1.49
Western Mosquitofish	Gambusia affinis	Poeciliidae	1963	1.26
Common Carp	Cyprinus carpio	Cyprinidae	1919	1.24
River Carpsucker	Carpiodes carpio	Catostomidae	1842	1.19
Orangethroat Darter	Etheostoma spectabile	Percidae	1589	1.02
Plains Killifish	Fundulus zebrinus	Cyprinodontidae	1397	0.90
Longnose Sucker	Catostomus catostomus	Catostomidae	1011	0.65
Black Bullhead	Ameiurs melas	Ictaluridae	973	0.63
Gizzard Shad	Dorosoma cepedianum	Clupeidae	862	0.56
Largemouth Bass	Micropterus salmoides	Centrarchidae	759	0.49
Shorthead Redhorse	Moxostoma macrolepidotum	Catostomidae	738	0.48
Bluegill	Lepomis macrochirus	Centrarchidae	517	0.33
Yellow Bullhead	Ameiurus natalis	Ictaluridae	499	0.32
Stonecat	Noturus flavus	Ictaluridae	376	0.24
Johnny Darter	Etheostoma nigrum	Percidae	375	0.24
Plains Topminnow	Fundulus sciadicus	Cyprinodontidae	374	0.24
Northern Plains Killifish	Fundulus kansae	Cyprinodontidae	359	0.23
Brook Stickleback	Culaea inconstans	Gasterosteidae	305	0.20
Blacknose Dace	Rhinichthys atratulus	Cyprinidae	215	0.14
Quillback	Carpiodes cyprinus	Catostomidae	199	0.13
Freshwater Drum	Aplodinotus grunniens	Scianidae	193	0.12
Rainbow Trout	Oncorhynchus mykiss	Salmonidae	164	0.11
Orangespotted Sunfish	Lepomis humilus	Centrarchidae	106	0.07
Grass Pickeral	Esox americanus	Esocidae	72	0.05
Northern Redbelly Dace	Phoxinus eos	Cyprinidae	59	0.04
Northern Pike	Esox lucius	Esocidae	53	0.03
Iowa Darter	Etheostoma exile	Percidae	50	0.03
White Bass	Morone chrysops	Moronidae	42	0.03
White Crappie	Pomoxis annularis	Centrarchidae	34	0.02
Yellow Perch	Perca flavescens	Percidae	23	0.01
Smallmouth Bass	Micropterus dolomieu	Centrarchidae	21	0.01

Table 4. continued.

Common Name	Scientific Name	Family	Total Count	Percent
Brook Trout	Salvelinus fontinalis	Salmonidae	13	0.01
Black Crappie	Pomoxis nigromaculatus	Centrarchidae	12	0.01
Finescale Dace	Phoxinus neogaeus	Cyprinidae	10	0.01
Shortnose Gar	Lepisosteus platostomus	Lepisosteidae	9	0.01
Brook Silverside	Labidesthes sicculus	Atherinopsidae	5	0.00
Walleye	Stizostedion vitreum	Percidae	5	0.00
Black Buffalo	Ictiobus niger	Catostomidae	4	0.00
Goldfish	Carassius auratus	Cyprinidae	3	0.00
Longnose Gar	Lepisosteus osseus	Lepisosteidae	2	0.00
		Total Count	155285	

Table 5. Fish families collected during the Nebraska Stream Biological Monitoring Program, 2004-2008.

Family	Number of Taxa	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Atherinopsidae	1	5	0.00	5	0.00
Catostomidae	6	7664	4.94	7669	4.94
Centrarchidae	7	6104	3.93	13773	8.87
Clupeidae	1	862	0.56	14635	9.42
Cyprinidae	13	126982	81.77	141617	91.20
Cyprinodontidae	3	2130	1.37	143747	92.57
Esocidae	2	125	0.08	143872	92.65
Gasterosteidae	1	305	0.20	144177	92.85
Ictaluridae	4	6680	4.30	150857	97.15
Lepisosteidae	2	11	0.01	150868	97.16
Moronidae	1	42	0.03	150910	97.18
Percidae	5	2042	1.32	152952	98.50
Poeciliidae	1	1963	1.26	154915	99.76
Salmonidae	2	177	0.11	155092	99.88
Scianidae	1	193	0.12	155285	100.00
Total Count	50	155285			

Table 6. Minimum, 25th percentile, median, 75th percentile, maximum, and number of samples for fish metrics and fish metric scores during the Nebraska Stream Biological Monitoring Program, 2004-2008.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
All Ecoregions						
IBI8	16.9946	43.8331	58.5953	67.934	91.8971	205
Numnatsp	1	6	10	14	25	205
Numfamly	1	3	4	5	9	205
Numsensitive	0	0	0	1	4	205
Proportolerant	0	0.5605	0.772	0.9335	1	205
Nsnbenth	0	1	2	4	7	205
Numlonglivesp	0	3	5	8	15	205
Proporalien	0	0	0	0	0.882	205
Proporcarn	0	0.1225	0.2975	0.5075	1	205
NatspScore	0.932161	4.212855	6.069718	8.545599	10	205
NatfamScore	1.64025	4.94285	6.62855	8.35683	10	205
SensitScore	0	0	0	4.20767	10	205
TolrntScore	0	0.70625	2.72941	5.4	10	205
BenthicspScore	0	2.8392	4.8283	7.03624	10	205
LongliveScore	0	4.14041	6.36364	10	10	205
AlienScore	1.18	10	10	10	10	205
CarnScore	0	1.42	5.02	10	10	205
Ecoregion 25						
IBI8	20.3228	54.7358	67.7752	76.5219	89.9118	31
Numnatsp	1	4	7	16	22	31
Numfamly	1	3	4	6	9	31
Numsensitive	0	1	1	2	3	31
Proportolerant	0	0.146	0.351	0.628	0.998	31
Nsnbenth	0	1	2	4	6	31
Numlonglivesp	0	2	4	8	11	31
Proporalien	0	0	0	0.113	0.882	31
Proporcarn	0	0.047	0.135	0.427	0.882	31
NatspScore	1.43792	3.43958	5.67278	8.16497	10	31
NatfamScore	2.53328	4.48262	6.70501	9.17908	10	31
SensitScore	0	2.41657	5.12986	8.01933	10	31
TolrntScore	0.025	4.65	8.1125	10	10	31
BenthicspScore	0	3.3333	6.56573	8.3333	10	31
LongliveScore	0	4.54545	6.0238	9.09091	10	31
AlienScore	1.18	8.87	10	10	10	31
CarnScore	0	1.88	5.4	10	10	31
Ecoregion 27						
IBI8	16.9946	44.6590	61.2767	68.0929	87.8	38
Numnatsp	1	8	13	16	22	38
Numfamly	1	4	5	6	9	38
Numsensitive	0	0	0	1	2	38
Proportolerant	0.169	0.6790	0.8135	0.9430	1	38
Nsnbenth	0	1	2	3	6	38

Table 6. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Ecoregion 27 continued.						
Numlonglivesp	0	5	7.5	10	15	38
Proporalien	0	0	0	0	0	38
Proporcarn	0	0.024	0.085	0.187	0.772	38
NatspScore	1.00275	5.53176	7.50017	9.70689	10	62
NatfamScore	2.31809	5.74641	7.79881	10	10	62
SensitScore	0	0	0	3.09892	10	62
TolrntScore	0	0.71250	2.33125	4.01250	10	62
BenthicspScore	0	2.61484	3.64602	6.66667	10	62
LongliveScore	0	6.01165	8.79949	10	10	62
AlienScore	10	10	10	10	10	62
CarnScore	0	0.96	3.42	7.48	10	62
Ecoregion 42						
IBI8	54.754	60.4998	69.0758	72.796	73.8255	6
Numnatsp	3	9	12	19	20	6
Numfamly	1	3	5	6	7	6
Numsensitive	0	0	1	2	2	6
Proportolerant	0.272	0.61	0.6645	0.748	0.802	6
Nsnbenth	2	3	4	4	6	6
Numlonglivesp	1	4	6	11	11	6
Proporalien	0	0	0	0	0	6
Proporcarn	0.031	0.041	0.123	0.509	0.527	6
NatspScore	2.84146	7.12988	8.09943	8.35293	9.75109	6
NatfamScore	2.42013	5.87836	7.29252	8.19833	9.72166	6
SensitScore	0	0	5.89022	6.97882	9.0612	6
TolrntScore	2.472	3.15	4.19375	4.875	5.35	6
BenthicspScore	6.48915	6.66667	6.85967	8.52984	10	6
LongliveScore	2.03515	6.52816	8.09879	10	10	6
AlienScore	10	10	10	10	10	6
CarnScore	1.24	1.64	4.92	10	10	6
Ecoregion 43						
IBI8	30.9089	60.1061	72.0028	85.3582	87.1041	8
Numnatsp	4	4	6.5	12.5	17	8
Numfamly	2	2	3.5	4.5	5	8
Numsensitive	0	1	1.5	2	2	8
Proportolerant	0	0.178	0.3995	0.5825	1	8
Nsnbenth	1	1	2.5	4.5	5	8
Numlonglivesp	2	2.5	4	8	12	8
Proporalien	0	0	0	0.1865	0.507	8
Proporcarn	0.062	0.226	0.375	0.43	0.521	8
NatspScore	2.76657	3.14135	4.74004	9.16557	10	8
NatfamScore	3.68602	4.56589	5.79686	7.31679	8.34008	8
SensitScore	0	4.56252	7.40068	9.67255	10	8

Table 6. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Ecoregion 43 continued.						
TolrntScore	0	5.21875	7.50625	9.8	10	8
BenthicspScore	2.22062	2.65866	6.32119	9.15743	10	8
LongliveScore	3.06272	3.78161	5.97476	10	10	8
AlienScore	4.93	8.135	10	10	10	8
CarnScore	2.48	7.52	10	10	10	8
Ecoregion 44						
IBI8	48.0707	59.0217	64.202	71.4448	82.6348	20
Numnatsp	2	7	11	13.5	18	20
Numfamly	2	4	4.5	5	8	20
Numsensitive	0	1	1	2	4	20
Proportolerant	0	0.171	0.4405	0.6415	0.854	20
Nsnbenth	0	1.5	2.5	4	5	20
Numlonglivesp	0	3.5	6	7.5	11	20
Proporalien	0	0	0	0	0.15	20
Proporcarn	0	0.0345	0.106	0.421	0.958	20
NatspScore	2.15783	4.86838	6.33131	8.53265	10	20
NatfamScore	4.69461	5.55556	6.81341	8.89271	10	20
SensitScore	0	1.56998	4.71379	6.83295	10	20
TolrntScore	1.825	4.48125	6.99375	9.90625	10	20
BenthicspScore	0	3.85701	5.64824	6.71366	9.81293	20
LongliveScore	0	5.14877	6.36364	10	10	20
AlienScore	8.49	10	10	10	10	20
CarnScore	0	1.38	4.24	10	10	20
Ecoregion 47						
IBI8	19.177	39.1867	47.3294	60.1748	91.8971	77
Numnatsp	1	6	8	12	25	77
Numfamly	1	2	3	4	9	77
Numsensitive	0	0	0	0	3	77
Proportolerant	0.293	0.754	0.894	0.983	1	77
Nsnbenth	0	1	2	3	7	77
Numlonglivesp	1	2	4	7	13	77
Proporalien	0	0	0	0	0	77
Proporcarn	0	0.032	0.116	0.305	1	77
NatspScore	0.932161	3.839479	5.17863	8.028517	10	77
NatfamScore	1.64025	4.30559	5.8259	7.5	10	77
SensitScore	0	0	0	0	10	77
TolrntScore	0	0.082359	1.235294	2.847059	8.3176471	77
BenthicspScore	0	2.72727	4.41879	7.06879	10	77
LongliveScore	0	0.3.11588	4.50497	7.05882	10	77
AlienScore	10	10	10	10	10	77
CarnScore	0	1.4	6.4667	10	10	77

Table 6. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Ecoregion 271						
IBI8	22.7586	43.6994	53.1254	61.4686	74.3718	25
Numnatsp	2	8	10	14	17	25
Numfamly	2	3	4	5	6	25
Numsensitive	0	0	0	0	0	25
Proportolerant	0.659	0.770	0.932	0.975	1	25
Nsnbenth	0	1	2	3	4	25
Numlonglivesp	1	5	6	9	12	25
Proporalien	0.029	0.191	0.238	0.442	0.719	25
Proporcarn	0.005	0.029	0.119	0.171	0.477	25
NatspScore	1.56713	5.52852	7.49154	8.61934	10	25
NatfamScore	3.86925	5.58523	6.40303	7.59558	9.81669	25
SensitScore	0	0	0	0	0	25
TolrntScore	0	0.3125	0.8500	2.8625	5.0125	25
BenthicspScore	0	2.89178	4.20361	5.61567	8.86126	25
LongliveScore	1.61053	5.84507	8.95062	10	10	25
AlienScore	10	10	10	10	10	25
CarnScore	0.20	1.16	4.76	6.84	10	25

Table 7. Table of fish raw metric values collected for the Nebraska Stream Biological Monitoring Program, 2004-2008. (Column headings are explained at end of table.)

STORET	NDEQ_ID	STRMNAME	numnatsp	numfamly	nsnsen	ptole	nsnbenth	nslunk	pintro	pncarn
009560	LP1153	Pawnee Creek	6	3	0	1	1	3	0	0.46
009740	SP2042	Lodgepole Creek	3	2	0	0.787	0	1	0	0.638
009810	NE2185	Lores Branch	6	3	0	0.792	1	4	0	0.631
010087	LP1023	Pawnee Creek	10	4	0	0.906	1	7	0	0.612
010112	NE3193	Indian Creek	6	3	0	0.5	3	2	0	0.176
010150	MP2057	Platte River	11	5	0	0.636	2	5	0	0.25
010158	NP2106	Blue Creek	9	8	0	0.754	3	4	0.001	0.744
010165	SP1031	South Platte River	14	6	1	0.492	4	8	0	0.354
BB1126	BB1126	Wolf Creek	7	3	0	1	2	3	0	0.032
BB1127	BB1127	Soap Creek	6	2	0	1	2	2	0	0.137
BB1128	BB1128	Pierce Creek	10	3	0	0.97	2	6	0	0.17
BB1129	BB1129	Cub Creek	7	3	0	0.769	1	4	0	0.385
BB2130	BB2130	Turkey Creek	14	5	0	0.86	2	9	0	0.175
BB2131	BB2131	Turkey Creek	13	4	0	0.944	2	9	0	0.084
BB2132	BB2132	South Fork Swan Creek	5	3	0	0.983	0	3	0	0.186
BB2133	BB2133	Turkey Creek	9	4	0	0.97	3	5	0	0.005
BB3134	BB3134	Beaver Creek	9	4	0	0.958	2	4	0	0.135
BB3135	BB3135	West Fork Big Blue River	14	4	0	0.831	2	10	0	0.037
BB3136	BB3136	West Fork Big Blue River	10	3	0	0.932	3	6	0	0.026
BB4137	BB4137	Plum Creek	6	3	0	1	1	3	0	0.026
BB4138	BB4138	Big Blue River	7	3	0	0.994	0	5	0	0.124
BB4139	BB4139	Lincoln Creek	8	3	0	0.971	1	5	0	0.013
BB4140	BB4140	Lincoln Creek	6	3	0	0.99	1	3	0	0.171
EL1113	EL1113	Maple Creek	7	2	1	0.902	2	2	0	0
EL1114	EL1114	Silver Creek	7	3	1	0.983	2	2	0	0
EL1115	EL1115	Pebble Creek	4	2	0	1	1	1	0	0.167
EL1116	EL1116	Bell Creek	10	4	0	0.921	3	3	0	0.07
EL1117	EL1117	W. Fork Maple Creek	2	1	0	1	1	0	0	0
EL1118	EL1118	E. Fork Maple Creek	4	1	0	0.888	2	1	0	0.463
EL1119	EL1119	Elkhorn River	25	8	3	0.742	6	12	0	0.018
EL1120	EL1120	Elkhorn River	23	8	3	0.926	7	9	0	0.007

Table 7. continued.

STORET	NDEQ_ID	Strmname	numnatsp	numfamly	nsnsen	ptole	nsnbenth	nslunk	pintro	pncarn
EL1121	EL1121	Humbug Creek	13	4	0	0.867	4	9	0	0.124
EL1122	EL1122	Elkhorn River	19	6	3	0.707	5	8	0	0.004
EL1123	EL1123	Union Creek	7	3	0	1	1	4	0	0.026
EL2124	EL2124	Middle Logan Creek	5	1	0	0.875	2	1	0	0.116
EL3125	EL3125	Dry Creek	12	5	2	0.576	5	4	0	0.075
EL4126	EL4126	Battle Creek	5	3	0	1	1	2	0	0.288
EL4127	EL4127	Elkhorn River	24	9	3	0.754	7	8	0	0.033
EL4128	EL4128	Elkhorn River	24	9	2	0.767	7	13	0	0.033
EL4129	EL4129	Clearwater Creek	12	6	2	0.572	4	5	0	0.041
EL4130	EL4130	Elkhorn River	20	6	2	0.678	4	11	0	0.118
EL4131	EL4131	Elkhorn River	17	5	0	0.508	4	11	0	0.043
EL4132	EL4132	Holt Creek	12	4	1	0.522	2	7	0	0.124
EL4133	EL4133	Holt Creek	13	4	1	0.533	2	8	0	0.026
LB1117	LB1117	Dry Branch	10	4	0	0.729	2	6	0	0.477
LB1131	LB1131	Little Blue River	14	5	0	0.96	4	9	0	0.006
LB2118	LB2118	Little Blue River	17	6	0	0.659	3	12	0	0.119
LB2119	LB2119	Spring Creek	2	2	0	1	0	1	0	0.029
LB2120	LB2120	Liberty Creek	10	3	0	0.93	2	6	0	0.145
LB2121	LB2121	Spring Creek	13	6	0	0.599	3	7	0	0.063
LB2122	LB2122	Little Blue River	14	5	0	0.71	3	9	0	0.13
LB2123	LB2123	Little Blue River	16	6	0	0.726	3	10	0	0.053
LB2124	LB2124	Elk Creek	9	3	0	0.975	1	6	0	0.25
LB2125	LB2125	Big Sandy Creek	14	5	0	0.795	4	8	0	0.063
LB2126	LB2126	Litle Blue River	16	6	0	0.771	3	11	0	0.161
LB2127	LB2127	Little Blue River	11	5	0	0.77	3	5	0	0.007
LB2129	LB2129	Spring Creek	12	4	0	0.994	2	8	0	0.417
LO1181	LO1181	Beaver Creek	14	5	1	0.665	2	8	0	0.044
LO1182	LO1182	Cedar River	15	6	2	0.384	4	8	0	0.119
LO1183	LO1183	Cottonwood Creek	5	3	0	1	1	2	0	0.105
LO1184	LO1184	Beaver Creek	17	7	2	0.761	5	8	0	0.088
LO2185	LO2185	Mira Creek	13	6	1	0.859	1	8	0	0.061

Table 7. continued.

STORET	NDEQ_ID	Strmname	numnatsp	numfamly	nsnsen	ptole	nsnbenth	nslunk	pintro	pncarn
LO2186	LO2186	North Loup River	18	6	1	0.819	4	13	0	0.036
LO2187	LO2187	North Loup River	15	5	3	0.618	5	7	0	0.008
LO2192	LO2192	North Loup River	17	5	1	0.199	4	10	0	0.006
LO2200	LO2200	Goose Creek	12	5	2	0.127	1	7	0	0.067
LO3088	LO3088	Dismal River	13	6	1	0.447	5	6	0	0.009
LO3165	LO3165	North Fork Dismal River (A)	4	3	1	0.028	1	2	0	0.006
LO3189	LO3189	Middle Loup River	16	5	1	0.792	4	8	0	0.006
LO3190	LO3190	Middle Loup River	13	5	2	0.215	5	7	0	0.147
LO3191	LO3191	Victoria Creek	11	4	0	0.809	3	8	0	0.178
LO3193	LO3193	Oak Creek	13	5	0	0.738	2	10	0	0.262
LO4194	LO4194	South Loup River	17	4	2	0.852	6	9	0	0.01
LO4195	LO4195	South Loup River	12	4	1	0.785	3	7	0	0.024
LO4196	LO4196	Mud Creek	3	2	0	1	1	1	0	0
LO4197	LO4197	Sourth Loup River	13	4	2	0.672	3	6	0	0.021
LP1170	LP1170	Bachelor Br To Eight Mile Cr.	9	3	0	0.989	2	5	0	0.445
LP1171	LP1171	Lost Creek	13	5	1	0.943	1	10	0	0.772
LP1172	LP1172	Shell Creek	2	1	0	1	0	1	0	0
LP1173	LP1173	Shell Creek	7	3	0	1	1	4	0	0.231
LP2174	LP2174	Salt Creek	11	4	0	0.895	2	7	0	0.092
LP2175	LP2175	Wahoo Creek	15	7	0	0.806	5	9	0	0.021
LP2176	LP2176	Bates Branch	4	1	0	0.557	2	1	0	0.226
LP2177	LP2177	Middle Creek	12	4	0	0.993	1	9	0	0.07
LP2178	LP2178	Middle Oak Creek	4	2	0	0.808	2	2	0	0.781
LP2179	LP2179	Cottonwood Creek	4	2	0	1	1	1	0	0
LP2180	LP2180	Silver Creek	6	3	0	1	1	3	0	0.101
LP2181	LP2181	Olive Branch Creek	10	4	0	0.885	1	7	0	0.023
LP2182	LP2182	Rock Creek	8	3	0	0.986	1	5	0	0.248
LP2183	LP2183	Clear Creek	18	8	0	0.869	3	12	0	0.332
LP2184	LP2184	Sand Creek	11	3	0	0.947	4	6	0	0.052
LP2185	LP2185	Dee Creek	8	3	0	0.894	2	4	0	0.288
LP2186	LP2186	Wahoo Creek	7	3	0	1	1	4	0	0.345

Table 7. continued.

STORET	NDEQ_ID	Strmname	numnatsp	numfamly	nsnsen	ptole	nsnbenth	nslunk	pintro	pncarn
LP2187	LP2178	Rock Creek	8	3	0	0.993	1	5	0	0.162
MP1003	MP1003	Clear Creek	8	4	1	0.926	1	4	0	0.093
MP1063	MP1063	Prairie Creek	8	4	0	0.923	2	5	0	0.167
MP2064	MP2064	Platte River	16	7	0	0.818	3	9	0	0.339
MP2065	MP2065	Spring Creek	1	1	0	1	0	0	0	0
MP2066	MP2066	Platte River	14	7	1	0.392	2	6	0	0.13
MP2067	MP2067	Platte River	12	5	1	0.309	2	5	0	0.09
MT1148	MT1148	S. Branch Papillion Creek	4	2	0	1	1	2	0	0.08
MT1150	MT1150	Big Papillion Creek	7	3	0	0.773	2	5	0	0.318
MT1151	MT1151	Long Creek	1	1	0	1	0	1	0	0
MT1152	MT1152	Mill Creek	6	4	0	0.896	2	4	0	0.754
MT1153	MT1153	Silver Creek	4	2	0	0.943	1	2	0	0.019
MT1154	MT1154	Cow Creek	4	1	0	0.858	2	1	0	0.41
MT1156	MT1156	North Omaha Creek	1	1	0	1	0	1	0	1
MT1157	MT1157	Omaha Creek	9	3	0	0.75	3	5	0	0.226
MT2158	MT2158	Elk Creek	4	1	0	0.915	2	1	0	0.128
MT2159	MT2159	Elk Creek	6	2	0	0.909	4	2	0	0.16
MT2160	MT2160	Elk Creek	9	4	0	0.758	5	4	0	0.167
MT2161	MT2161	Lime Creek	13	5	0	0.793	5	7	0	0.097
MT2162	MT2162	West Bow Creek	14	7	0	0.508	3	9	0	0.056
MT2163	MT2163	Unnamed Trib. Norwegian Bow Creek	5	1	0	0.904	3	1	0	0.711
MT2164	MT2164	Norwegian Bow Creek	7	3	0	0.963	4	3	0	0.492
MT2165	MT2165	West Bow Creek	10	4	0	0.647	4	6	0	0.113
MT2166	MT2166	Little Bazile Creek	15	6	1	0.626	6	7	0	0.058
MT2167	MT2167	Unnamed Trib. Bazile Creek	10	4	2	0.701	4	3	0	0.453
MT2168	MT2168	Bazile Creek	20	9	1	0.533	3	12	0	0.101
NE1196	NE1196	Big Slough	5	2	0	1	1	2	0	0.685
NE1197	NE1197	Winnebago Creek	8	3	0	0.759	2	6	0	0.414
NE2198	NE2198	Big Nemaha River	13	4	1	0.936	2	6	0	0.003
NE2199	NE2199	Whiskey Run	9	3	0	0.293	3	4	0	0.146
NE2200	NE2200	Long Branch Creek	6	3	0	0.982	1	3	0	0.053

Table 7. continued.

STORET	NDEQ_ID	Strmname	numnatsp	numfamly	nsnsen	ptole	nsnbenth	nslunk	pintro	pncarn
NE2201	NE2201	Unnamed Trib. Balls Branch	8	3	0	0.63	2	5	0	0.259
NE2202	NE2202	Fourmile Creek	12	4	0	0.861	2	9	0	0.23
NE2203	NE2203	Middle Branch Big Nemaha River	10	4	0	0.608	2	6	0	0.035
NE2204	NE2204	Muddy Creek	11	4	0	0.935	3	6	0	0.015
NE2205	NE2205	S. Fork Big Nemaha River	15	5	0	0.758	3	10	0	0.015
NE2206	NE2206	N. Fork Big Nemaha River	14	5	0	0.931	3	9	0	0.004
NE2207	NE2207	Mid. Br. Big Nemaha River	4	2	0	0.894	2	1	0	0.002
NE2208	NE2208	Little Muddy Creek	12	4	0	0.64	4	7	0	0.057
NE2209	NE2209	Hoosier Creek	5	2	0	0.631	2	3	0	0.408
NE3210	NE3210	Hooper Creek	11	4	0	0.836	1	8	0	0.305
NE3211	NE3211	Little Nemaha River	15	7	1	0.722	4	6	0	0.005
NE3212	NE3212	Sand Creek	6	2	0	0.689	2	2	0	0.028
NE3213	NE3213	Little Nemaha River	19	8	1	0.637	5	9	0	0.043
NI1499	NI1499	Ponca Creek	12	5	0	0.61	3	7	0	0.128
NI2078	NI2078	Middle Branch Eagle Creek	9	3	1	0.748	6	4	0	0.527
NI2500	NI2500	Verdigre Creek	19	7	0	0.651	4	11	0	0.031
NI2501	NI2501	Spring Creek	3	1	1	0.802	2	1	0	0.509
NI3180	NI3180	Muleshoe Creek	4	2	2	0.431	1	2	0	0.431
NI3270	NI3270	Boardman Creek	4	4	1	0.103	1	3	0	0.093
NI3503	NI3503	South Fork Plum Creek	6	5	1	0.434	2	5	0.151	0.51
NI3504	NI3504	Gordon Creek	9	4	4	0.091	2	0	0	0
NI3505	NI3505	Burton Creek	11	3	2	0.649	5	6	0	0.357
NI3506	NI3506	Willow Creek	5	3	1	0.232	2	4	0.214	0.214
NI3507	NI3507	Plum Creek	8	5	2	0.124	3	6	0.159	0.167
NI3509	NI3509	Minnechaduza Creek	17	5	2	0.516	5	10	0	0.126
NI3510	NI3510	Minnechaduza Creek (A)	14	5	1	0.368	4	12	0	0.393
NI3511	NI3511	Bone Creek	8	3	2	0.277	3	3	0	0.233
NI3520	NI3520	Fairfield Creek	4	5	1	0	1	4	0.507	0.014
NI4278	NI4278	Dry Creek	2	2	0	0	0	2	0	0.958
NI4514	NI4514	Niobrara River - Near Merriman	7	4	1	0.232	4	5	0	0.063
NI4515	NI4515	Niobrara River Near Hay Springs	13	6	2	0.368	5	6	0	0.112

Table 7. continued.

STORET	NDEQ_ID	Strmname	numnatsp	numfamly	nsnsen	ptole	nsnbenth	nslunk	pintro	pncarn
NI4516	NI4516	Niobrara River Near Harrison	7	3	3	0.361	1	4	0.005	0.334
NI4517	NI4517	Rush Creek	7	5	0	0.854	1	5	0	0.854
NP1114	NP1114	North Platte River	17	8	0	0.724	3	11	0	0.063
NP1115	NP1115	North Platte River	20	9	1	0.679	3	11	0	0.031
NP1116	NP1116	Birdwood Creek	10	4	0	0.718	3	6	0	0.297
NP1117	NP1117	North Platte River	15	6	1	0.169	2	9	0	0.053
NP1118	NP1118	Whitetail Creek	11	6	2	0.885	4	6	0	0.866
NP2119	NP2119	Blue Creek	18	8	1	0.833	5	11	0	0.545
NP2120	NP2120	Blue Creek	7	4	1	0.672	4	4	0	0.626
NP2121	NP2121	North Platte River	21	9	1	0.628	5	11	0	0.182
NP2122	NP2122	North Platte River	19	7	1	0.779	4	11	0	0.167
NP3066	NP3066	North Platte River	18	5	2	0.29	5	9	0	0.047
NP3098	NP3098	North Platte River	16	6	1	0.306	5	7	0	0.161
NP3123	NP3123	North Platte River	18	7	1	0.406	4	10	0	0.04
NP3124	NP3124	Red Willow Creek	8	4	1	0.575	2	6	0.15	0.556
NP3125	NP3125	Wildhorse Drain	5	3	1	0.133	2	5	0.711	0.12
NP3126	NP3126	North Platte River	17	6	2	0.564	4	8	0	0.03
NP3127	NP3127	North Platte River	21	7	2	0.258	5	9	0	0.039
NP3128	NP3128	Gering Drain	7	3	0	0.351	2	4	0	0.149
NP3130	NP3130	North Platte River - Morrill	22	7	2	0.254	6	10	0	0.048
NP3131	NP3131	Sheep Creek	4	4	1	0.071	2	3	0.314	0.071
RE1211	RE1211	Republican River	22	8	0	0.818	5	15	0	0.137
RE1212	RE1212	Republican River	19	9	0	0.794	4	11	0	0.034
RE2213	RE2213	Flag Creek	8	3	1	0.749	1	3	0	0.277
RE2214	RE2214	Prairie Dog Creek	8	3	0	0.975	0	5	0	0.122
RE2215	RE2215	Muddy Creek	10	5	0	0.966	1	6	0	0.083
RE2216	RE2216	Sappa Creek	9	5	0	0.971	1	4	0	0.002
RE2217	RE2217	Beaver Creek	5	2	0	0.633	1	3	0	0.143
RE2227	RE2227	Deer Creek	6	2	0	1	1	4	0	0.061
RE3218	RE3218	Frenchman Creek	15	6	0	0.564	3	9	0	0.187
RE3219	RE3219	Republican River	7	3	1	0.039	2	2	0	0.002

Table 7. continued.

STORET	NDEQ_ID	Strmname	numnatsp	numfamly	nsnsen	ptole	nsnbenth	nslunk	pintro	pncarn
RE3220	RE3220	Red Willow Creek	10	5	0	0.979	2	5	0	0.029
RE3221	RE3221	Frenchman Creek	14	7	0	0.231	3	9	0	0.133
RE3222	RE3222	Medicine Creek	7	4	0	0.41	1	5	0	0.02
RE3223	RE3223	Muddy Creek	9	3	0	0.928	1	6	0	0.345
RE3224	RE3224	Medicine Creek	16	6	0	0.846	1	11	0	0.219
RE3225	RE3225	Republican River	16	7	0	0.688	1	12	0	0.209
RE3226	RE3226	Stinking Water Creek	12	6	0	0.774	3	8	0	0.427
SP2043	SP2043	Lodgepole Creek	2	2	0	0.915	0	0	0	0
SP2044	SP2044	Lodgepole Creek	4	3	0	0.998	1	2	0	0.002
SP2045	SP2045	Lodgepole Creek	10	7	1	0.495	1	4	0	0.283
SP2046	SP2046	Lodgepole Creek	7	4	0	0.146	1	4	0	0.072
WH1071	WH1071	Beaver Creek	2	2	1	0.135	1	1	0.135	0.135
WH1074	WH1074	Big Bordeaux Creek	3	4	1	0	2	3	0.882	0
WH1075	WH1075	Larabee Creek	6	3	1	0.455	1	4	0	0.444
WH1076	WH1076	White River, North Of Chadron	4	2	0	1	1	2	0	0.062
WH1077	WH1077	White River - Crawford City Park	3	3	1	0.022	1	3	0.113	0.022
WH1078	WH1078	White River, South Of Ft Rob SP	4	4	1	0.162	1	4	0.208	0.162
WH1080	WH1080	West Ash Creek	1	2	1	0	1	0	0.615	0

*numnatsp – Total number of native species
numnatfm -- Total number of native families
nssn – Total number of sensitive species
Ptole – Proportion of tolerant species
Nsnbenth – Number of benthic species
Nslunk – Number of long-lived species
Pintro – Proportion of alien species
Pncarn – Proportion of carnivore species

Table 8. Table of fish metric scores collected for the Nebraska Stream Biological Monitoring Program, 2004-2008. (Column headings are explained at end of table.)

STORET	NDEQ_ID	STRMNAME	Natsp*	Natfam	Sensit	Tolrnt	Benthic	Longlive	Alien	Carn	Ibi8
009560	LP1153	Pawnee Creek	10	10	0	0	10	10	10	0	62.5
009740	SP2042	Lodgepole Creek	2.6646008	4.4826159	0	2.6625	0	1.8777525	10	10	39.609336
009810	NE2185	Lores Branch	10	10	0	0	10	10	10	0	62.5
010087	LP1023	Pawnee Creek	10	10	0	0	10	10	10	0	62.5
010112	NE3193	Indian Creek	10	10	0	0	10	10	10	0	62.5
010150	MP2057	Platte River	5.4266629	5.7464101	0	4.55	3.3333333	4.7072689	10	10	54.704594
010158	NP2106	Blue Creek	5.7370363	10	0	3.075	5.9657104	5.0451155	9.99	10	62.266078
010165	SP1031	South Platte River	6.8378538	6.8204736	3.1213224	6.35	6.6666667	7.4475739	10	10	71.554863
BB1126	BB1126	Wolf Creek	5.1786304	6.3989058	0	0	5.0135104	4.0515599	10	2.1333333	40.969925
BB1127	BB1127	Soap Creek	9.1294577	7.5538862	0	0	10	7.650453	10	9.1333333	66.833913
BB1128	BB1128	Pierce Creek	10	9.2053286	0	0.3529412	8.5542542	10	10	10	72.640655
BB1129	BB1129	Cub Creek	3.2903246	4.3055906	0	2.7176471	1.5100154	3.1359557	10	10	43.699417
BB2130	BB2130	Turkey Creek	8.8790415	7.5955785	0	1.75	3.9502992	10	10	7	61.468649
BB2131	BB2131	Turkey Creek	8.313124	6.1332437	0	0.7	3.9939877	10	10	3.36	53.125444
BB2132	BB2132	South Fork Swan Creek	4.5744147	6.9650725	0	0.2125	0	5.8450733	10	7.44	43.796326
BB2133	BB2133	Turkey Creek	4.9172497	5.1443281	0	0.375	5	5.2822908	10	0.2	38.648586
BB3134	BB3134	Beaver Creek	5.6010511	5.948527	0	0.525	3.8524038	4.9065852	10	5.4	45.291959
BB3135	BB3135	West Fork Big Blue River	9.2999766	6.403033	0	2.1125	4.2036146	10	10	1.48	54.373905
BB3136	BB3136	West Fork Big Blue River	5.6279258	3.9871558	0	0.85	5.0689558	6.5562875	10	1.04	41.412906
BB4137	BB4137	Plum Creek	5.6416545	7.1971095	0	0	3.4857579	6.0495572	10	1.04	41.767599
BB4138	BB4138	Big Blue River	5.1971121	5.4530646	0	0.075	0	7.5476591	10	4.96	41.541045
BB4139	BB4139	Lincoln Creek	5.5285184	5.0229425	0	0.3625	2.2180761	6.9318087	10	0.52	38.229807
BB4140	BB4140	Lincoln Creek	4.7748278	5.9094332	0	0.125	2.7069362	4.9230523	10	6.84	44.099062
EL1113	EL1113	Maple Creek	3.0444882	2.6764972	2.3423881	1.1529412	2.7756282	1.4346999	10	0	29.283303
EL1114	EL1114	Silver Creek	4.7123685	5.9040181	4.8344845	0.2	4.5012501	2.4018073	10	0	40.692411
EL1115	EL1115	Pebble Creek	1.6080892	2.4920847	0	0	1.2747994	0.6562441	10	10	32.539022
EL1116	EL1116	Bell Creek	4.9838224	6.0493583	0	0.9294118	4.8294697	2.516574	10	4.6666667	42.469129
EL1117	EL1117	W. Fork Maple Creek	1.9801759	2.7142335	0	0	3.5343937	0	10	0	22.786004
EL1118	EL1118	E. Fork Maple Creek	3.8394793	2.647106	0	1.3176471	6.8090385	1.8986165	10	10	45.639859
EL1119	EL1119	Elkhorn River	9.2592593	6.6666667	2.7272727	3.0352941	5.4545455	7.0588235	10	1.2	56.752327
EL1120	EL1120	Elkhorn River	8.5185185	6.6666667	2.7272727	0.8705882	6.3636364	5.2941176	10	0.4666667	51.134334
EL1121	EL1121	Humbug Creek	8.2412268	7.4744558	0	1.5647059	8.4114163	10	10	8.2666667	67.448089
EL1122	EL1122	Elkhorn River	7.037037	5	2.7272727	3.4470588	4.5454545	4.7058824	10	0.2666667	47.161715
EL1123	EL1123	Union Creek	3.9669024	5.0834398	0	0	1.8550223	3.9014842	10	1.7333333	33.175228

Table 8. continued.

STORET	NDEQ_ID	Strmname	Natsp*	Natfam	Sensit	Tolrnt	Benthic	Longlive	Alien	Carn	Ibi8
EL2124	EL2124	Middle Logan Creek	3.152645	1.8598982	0	1.4705882	4.1802412	1.1085998	10	7.7333333	36.881632
EL3125	EL3125	Dry Creek	8.0285174	9.7878486	9.5538158	4.9882353	10	4.7672087	10	5	77.657032
EL4126	EL4126	Battle Creek	4.1363827	7.0284833	0	0	2.8538219	3.1158795	10	10	46.418209
EL4127	EL4127	Elkhorn River	8.8888889	7.5	2.7930259	2.8941176	6.3636364	4.7058824	10	2.2	56.681939
EL4128	EL4128	Elkhorn River	8.8888889	7.5	1.96026	2.7411765	6.3636364	7.6470588	10	2.2	59.126276
EL4129	EL4129	Clearwater Creek	8.0570265	9.7216632	9.0612021	5.35	8.5298358	6.7006395	10	1.64	73.825459
EL4130	EL4130	Elkhorn River	9.7510852	6.8072675	6.2300469	4.025	6.6666667	10	10	4.72	72.750083
EL4131	EL4131	Elkhorn River	9.3917957	6.5099755	0	6.15	6.6666667	10	10	1.72	63.048047
EL4132	EL4132	Holt Creek	8.6443624	7.022817	4.9346227	5.975	4.6983593	10	10	4.96	70.293952
EL4133	EL4133	Holt Creek	8.7252622	6.4784255	4.5286102	5.8375	4.2628063	10	10	1.04	63.590755
LB1117	LB1117	Dry Branch	9.4437476	9.6464019	0	3.3875	7.0198045	10	10	10	74.371818
LB1131	LB1131	Little Blue River	6.7294616	5.5852283	0	0.5	6.6666667	8.2300199	10	0.24	47.439221
LB2118	LB2118	Little Blue River	10	9.8166912	0	4.2625	6.4723104	10	10	4.76	69.139377
LB2119	LB2119	Spring Creek	1.567133	3.8692517	0	0	0	1.6105319	10	1.16	22.758646
LB2120	LB2120	Liberty Creek	10	8.5834518	0	0.875	8.8612606	10	10	5.8	67.649641
LB2121	LB2121	Spring Creek	8.3848409	9.2894914	0	5.0125	6.0601825	8.9506196	10	2.52	62.772043
LB2122	LB2122	Little Blue River	8.5257934	7.2567763	0	3.625	5.6156698	10	10	5.2	62.779049
LB2123	LB2123	Little Blue River	8.6193374	7.5969877	0	3.425	5	10	10	2.12	58.451656
LB2124	LB2124	Elk Creek	7.4915448	6.2282283	0	0.3125	2.8917799	10	10	10	58.655066
LB2125	LB2125	Big Sandy Creek	8.4134905	7.1497774	0	2.5625	7.3584911	9.4248331	10	2.52	59.286365
LB2126	LB2126	Litle Blue River	9.4041495	8.3692673	0	2.8625	5.3612507	10	10	6.44	65.546459
LB2127	LB2127	Little Blue River	5.9929706	6.4102724	0	2.875	5	5.2653156	10	0.28	44.779448
LB2129	LB2129	Spring Creek	7.844427	6.2876494	0	0.075	4.1135451	10	10	10	60.400777
LO1181	LO1181	Beaver Creek	8.0091011	6.7672961	3.746619	4.1875	3.4512056	8.9066955	10	1.76	58.535522
LO1182	LO1182	Cedar River	8.2508402	7.7743225	7.1580594	7.7	6.6666667	8.5166812	10	4.76	76.033212
LO1183	LO1183	Cottonwood Creek	4.9869774	7.7283509	0	0	3.8337136	4.3468097	10	4.2	43.869814
LO1184	LO1184	Beaver Creek	9.6839344	9.429345	7.4559561	2.9875	8.5807068	8.8633522	10	3.52	75.650993
LO2185	LO2185	Mira Creek	10	10	5.4175914	1.7625	2.6148414	10	10	2.44	65.293666
LO2186	LO2186	North Loup River	7.6518835	6.6666667	2.6678565	2.2625	6.6666667	10	10	1.44	59.194467
LO2187	LO2187	North Loup River	6.2799926	5.5555556	7.8679637	4.775	8.3333333	6.3636364	10	0.32	61.869352
LO2192	LO2192	North Loup River	10	10	10	10	10	10	10	0.24	87.8
LO2200	LO2200	Goose Creek	9.6314106	9.9473783	10	10	2.7407669	10	10	2.68	81.249445
LO3088	LO3088	Dismal River	6.3826276	6.8595309	3.1399577	6.9125	8.3333333	5.6184112	10	0.36	59.507951
LO3165	LO3165	North Fork Dismal River (A)	2.8644106	5.2314226	4.898964	10	2.3298528	2.8919427	10	0.24	48.070741

Table 8. continued.

STORET	NDEQ_ID	Strmname	Natsp*	Natfam	Sensit	Tolrnt	Benthic	Longlive	Alien	Carn	Ibi8
LO3189	LO3189	Middle Loup River	6.6666667	5.5555556	2.4060432	2.6	6.6666667	7.2727273	10	0.24	51.759574
LO3190	LO3190	Middle Loup River	6.131842	5.5555556	5.9996683	9.8125	8.3333333	6.3636364	10	5.88	72.59567
LO3191	LO3191	Victoria Creek	10	9.2795521	0	2.3875	10	10	10	7.12	73.483815
LO3193	LO3193	Oak Creek	9.5474245	8.9754501	0	3.275	4.8271388	10	10	10	70.781267
LO4194	LO4194	South Loup River	10	5.8809438	8.1755976	1.85	10	10	10	0.4	70.383177
LO4195	LO4195	South Loup River	5.5317619	4.4444444	2.9227824	2.6875	5	6.3636364	10	0.96	47.387656
LO4196	LO4196	Mud Creek	2.2080799	3.5992293	0	0	2.4210067	1.493965	10	0	24.652851
LO4197	LO4197	Sourth Loup River	6.3082288	4.5146924	6.1964506	4.1	5	5.5451032	10	0.84	53.130594
LP1170	LP1170	Bachelor Br To Eight Mile Cr.	3.7444149	3.8565137	0	0.1294118	2.6455852	3.4106624	10	10	42.233235
LP1171	LP1171	Lost Creek	9.4267882	8.8452911	4.9746879	0.7125	2.3709414	10	10	10	70.412761
LP1172	LP1172	Shell Creek	1.8273889	2.3180911	0	0	0	1.9451908	10	0	20.113339
LP1173	LP1173	Shell Creek	4.7621443	5.9575072	0	0	2.2776419	4.8661992	10	10	47.329366
LP2174	LP2174	Salt Creek	4.0740741	3.8807361	0	1.2352941	1.9083019	4.1176471	10	6.1333333	39.186733
LP2175	LP2175	Wahoo Creek	5.5555556	7.6066344	0	2.2823529	5.4323133	5.2941176	10	1.4	46.963717
LP2176	LP2176	Bates Branch	2.1845984	1.6402536	0	5.2117647	3.5611518	0.9336631	10	10	41.91429
LP2177	LP2177	Middle Creek	4.5448109	4.7198608	0	0.0823529	1.1956639	5.5237726	10	4.6666667	38.41641
LP2178	LP2178	Middle Oak Creek	3.9603518	5.4284671	0	2.2588235	7.0687874	3.9622213	10	10	53.348314
LP2179	LP2179	Cottonwood Creek	4.4240505	5.9290488	0	0	4.0485949	2.316166	10	0	33.397325
LP2180	LP2180	Silver Creek	3.9346932	5.7723561	0	0	2.1847888	3.4887249	10	6.7333333	40.14237
LP2181	LP2181	Olive Branch Creek	6.1229162	7.2523658	0	1.3529412	2.0223414	7.4896582	10	1.5333333	44.716945
LP2182	LP2182	Rock Creek	5.4194629	5.9359116	0	0.1647059	2.2667152	6.0510902	10	10	49.797357
LP2183	LP2183	Clear Creek	8.2562383	10	0	1.5411765	4.4108532	9.1470932	10	10	66.694202
LP2184	LP2184	Sand Creek	6.5529222	5.3107356	0	0.6235294	7.844706	6.2114442	10	3.4666667	50.012505
LP2185	LP2185	Dee Creek	5.2984329	5.8217811	0	1.2470588	4.4187865	4.7083443	10	10	51.868005
LP2186	LP2186	Wahoo Creek	3.4852228	4.5330144	0	0	1.6080764	3.3515771	10	10	41.222363
LP2187	LP2178	Rock Creek	8.1657344	8.3443953	0	0.0823529	3.6677578	10	10	10	62.825301
MP1003	MP1003	Clear Creek	5.0500097	6.0444599	4.2079438	0.925	1.9628704	4.988167	10	3.72	46.123063
MP1063	MP1063	Prairie Creek	7.0566171	8.8919562	0	0.9625	6.3115415	9.3084747	10	6.68	61.513862
MP2064	MP2064	Platte River	7.5155735	7.7777778	0	2.275	5	8.1818182	10	10	63.437712
MP2065	MP2065	Spring Creek	1.0027534	2.5929514	0	0	0	0	10	0	16.994631
MP2066	MP2066	Platte River	6.7298801	7.8198512	3.0651981	7.6	3.3333333	5.4870615	10	5.2	61.544155
MP2067	MP2067	Platte River	5.2530693	5.5555556	2.7571584	8.6375	3.3333333	4.5454545	10	3.6	54.602589
MT1148	MT1148	S. Branch Papillion Creek	2.4290235	3.6002063	0	0	2.0037121	2.1187251	10	5.3333333	31.85625
MT1150	MT1150	Big Papillion Creek	3.4681455	4.5131974	0	2.6705882	3.1988839	4.1656614	10	10	47.520596

Table 8. continued.

STORET	NDEQ_ID	Strmname	Natsp*	Natfam	Sensit	Tolrnt	Benthic	Longlive	Alien	Carn	Ibi8
MT1151	MT1151	Long Creek	0.9321615	2.5848453	0	0	0	1.8246197	10	0	19.177033
MT1152	MT1152	Mill Creek	5.4824006	10	0	1.2235294	6.4188312	7.105014	10	10	62.787219
MT1153	MT1153	Silver Creek	4.2827991	5.778939	0	0.6705882	3.8892116	4.4216834	10	1.2666667	37.88736
MT1154	MT1154	Cow Creek	2.4330073	1.8026741	0	1.6705882	4.0147872	1.0614539	10	10	38.728138
MT1156	MT1156	North Omaha Creek	1.0435591	2.8310838	0	0	0	2.1318738	10	10	32.508146
MT1157	MT1157	Omaha Creek	4.7687105	4.7907605	0	2.9411765	5.1659318	4.5049706	10	10	52.714437
MT2158	MT2158	Elk Creek	2.3431033	1.7443881	0	1	3.8493272	1.0145948	10	8.5333333	35.605933
MT2159	MT2159	Elk Creek	2.2222222	2.2682369	0	1.0705882	4.5665581	1.1764706	10	10	39.130095
MT2160	MT2160	Elk Creek	4.940335	6.5904314	0	2.8470588	8.9529953	3.7570608	10	10	58.859852
MT2161	MT2161	Lime Creek	10	10	0	2.4352941	10	10	10	6.4666667	73.627451
MT2162	MT2162	West Bow Creek	6.5259417	9.9713834	0	5.7882353	4.48901	6.9885013	10	3.7333333	59.370506
MT2163	MT2163	Unnamed Trib. Norwegian Bow Creek	10	7.5822594	0	1.1294118	10	10	10	10	73.389589
MT2164	MT2164	Norwegian Bow Creek	5.9665391	7.204937	0	0.4352941	10	4.8596027	10	10	60.582966
MT2165	MT2165	West Bow Creek	3.7674814	4.6971923	0	4.1529412	4.7557887	3.6609427	10	7.5333333	48.2096
MT2166	MT2166	Little Bazile Creek	5.8547893	7.2775325	2.0081382	4.4	7.4096635	4.4436945	10	3.8666667	56.575606
MT2167	MT2167	Unnamed Trib. Bazile Creek	10	10	10	3.5176471	10	10	10	10	91.897059
MT2168	MT2168	Bazile Creek	7.4074074	7.5277563	1.191145	5.4941176	2.7272727	7.0588235	10	6.7333333	60.17482
NE1196	NE1196	Big Slough	3.8498446	4.412379	0	0	2.6250393	2.8411938	10	10	42.160571
NE1197	NE1197	Winnebago Creek	9.6210278	9.4942977	0	2.8352941	8.9951138	10	10	10	76.182167
NE2198	NE2198	Big Nemaha River	4.8148148	3.3333333	1.1025542	0.7529412	1.8181818	3.5294118	10	0.2	31.939046
NE2199	NE2199	Whiskey Run	8.5654043	7.8865361	0	8.3176471	10	7.5066729	10	9.7333333	77.511992
NE2200	NE2200	Long Branch Creek	2.4730533	3.8239126	0	0.2117647	1.3095209	2.0248936	10	3.5333333	29.220598
NE2201	NE2201	Unnamed Trib. Balls Branch	8.8235691	8.8741415	0	4.3529412	8.0693132	10	10	10	75.149956
NE2202	NE2202	Fourmile Creek	5.5662296	5.6728272	0	1.6352941	2.9766867	6.949147	10	10	53.500231
NE2203	NE2203	Middle Branch Big Nemaha River	3.9439342	4.8978867	0	4.6117647	2.4975972	3.8535377	10	2.3333333	40.172567
NE2204	NE2204	Muddy Creek	4.0740741	3.6988481	0	0.7647059	2.7272727	3.5294118	10	1	32.242891
NE2205	NE2205	S. Fork Big Nemaha River	5.5555556	4.4709554	0	2.8470588	2.7272727	5.8823529	10	1	40.603994
NE2206	NE2206	N. Fork Big Nemaha River	5.1851852	4.6928561	0	0.8117647	2.7569512	5.2941176	10	0.2666667	36.259427
NE2207	NE2207	Mid. Br. Big Nemaha River	2.6492165	3.8811874	0	1.2470588	4.4187865	1.1770861	10	0.1333333	29.383336
NE2208	NE2208	Little Muddy Creek	7.4096537	7.3056865	0	4.2352941	8.166165	7.5661561	10	3.8	60.603694
NE2209	NE2209	Hoosier Creek	3.7085085	4.2752022	0	4.3411765	5.0283051	4.0646524	10	10	51.772306
NE3210	NE3210	Hooper Creek	5.2560961	5.8258962	0	1.9294118	1.5373123	6.3916454	10	10	51.175452
NE3211	NE3211	Little Nemaha River	5.5555556	5.9154048	1.2073244	3.2705882	3.6363636	3.5294118	10	0.3333333	41.809977
NE3212	NE3212	Sand Creek	4.4966789	4.3129456	0	3.6588235	5.0888141	2.7455171	10	1.8666667	40.211807

Table 8. continued.

STORET	NDEQ_ID	Strmname	Natsp*	Natfam	Sensit	Tolrnt	Benthic	Longlive	Alien	Carn	Ibi8
NE3213	NE3213	Little Nemaha River	7.037037	6.6666667	1.0991397	4.2705882	4.5454545	5.2941176	10	2.8666667	52.224588
NI1499	NI1499	Ponca Creek	8.1418302	8.1983294	0	4.875	6.489149	9.4969347	10	5.12	65.401554
NI2078	NI2078	Middle Branch Eagle Creek	7.1298796	5.8783637	5.5503944	3.15	10	6.5281586	10	10	72.795995
NI2500	NI2500	Verdigre Creek	8.3529319	7.7777778	0	4.3625	6.6666667	10	10	1.24	60.499845
NI2501	NI2501	Spring Creek	2.8414602	2.4201298	6.9788174	2.475	7.0526789	2.0351459	10	10	54.75404
NI3180	NI3180	Muleshoe Creek	3.2770725	4.0755393	10	7.1125	2.8245705	3.4000494	10	10	63.362165
NI3270	NI3270	Boardman Creek	3.5911042	9.0802053	6.5078473	10	3.2424915	5.7089173	10	3.72	64.813207
NI3503	NI3503	South Fork Plum Creek	4.7081476	7.751409	5.4846518	7.075	5.3046236	6.4533022	8.49	10	69.083918
NI3504	NI3504	Gordon Creek	7.7976105	8.7052192	10	10	6.1415849	0	10	0	65.805518
NI3505	NI3505	Burton Creek	9.1069355	6.188841	10	4.3875	10	10	10	10	87.104096
NI3506	NI3506	Willow Creek	4.9102565	5.0562409	7.3211441	9.6	7.4754961	6.3923009	7.86	10	73.269298
NI3507	NI3507	Plum Creek	4.5698259	5.4048812	7.4802138	10	5.1668892	5.5572218	8.41	10	70.73629
NI3509	NI3509	Minnechaduza Creek	10	8.3400841	9.345098	6.05	10	10	10	5.04	85.968978
NI3510	NI3510	Minnechaduza Creek (A)	9.2242134	7.9299538	4.4289712	7.9	8.3148518	10	10	10	84.747488
NI3511	NI3511	Bone Creek	5.592682	5.0894954	9.5149623	9.0375	6.760657	4.2161169	10	9.32	74.414267
NI3520	NI3520	Fairfield Creek	2.7665669	6.7036302	4.6960607	10	2.2206177	4.1631797	4.93	10	56.850069
NI4278	NI4278	Dry Creek	2.1578301	5.673063	0	10	0	4.8124981	10	10	53.304239
NI4514	NI4514	Niobrara River - Near Merriman	3.8054821	5.1159747	3.530615	9.6	6.6666667	5.2524169	10	2.52	58.113944
NI4515	NI4515	Niobrara River Near Hay Springs	10	10	10	7.9	10	9.5494553	10	4.48	89.911819
NI4516	NI4516	Niobrara River Near Harrison	5.6727786	4.0239957	10	7.9875	2.7797213	5.0328838	9.95	10	69.308599
NI4517	NI4517	Rush Creek	8.4209373	10	0	1.825	5.3307645	10	10	10	69.470877
NP1114	NP1114	North Platte River	7.0833333	8.8888889	0	3.45	5	10	10	2.52	58.677778
NP1115	NP1115	North Platte River	9.7068853	10	3.0989235	4.0125	5	10	10	1.24	66.322886
NP1116	NP1116	Birdwood Creek	5.0286068	4.6946115	0	3.525	5	5.771369	10	10	55.024484
NP1117	NP1117	North Platte River	6.4474138	6.6666667	2.7011197	10	3.3333333	8.1818182	10	2.12	61.81294
NP1118	NP1118	Whitetail Creek	7.8887069	10	9.8155274	1.4375	9.3384743	8.6909653	10	10	83.963967
NP2119	NP2119	Blue Creek	10	10	4.2073977	2.0875	9.8129295	10	10	10	82.634784
NP2120	NP2120	Blue Creek	4.5555349	6.2559878	4.3639173	4.1	8.1778778	5.1683352	10	10	65.777066
NP2121	NP2121	North Platte River	8.8956859	10	2.657307	4.65	8.3333333	10	10	7.28	77.270408
NP2122	NP2122	North Platte River	7.9166667	7.7777778	2.4165664	2.7625	6.6666667	10	10	6.68	67.775222
NP3066	NP3066	North Platte River	7.5	5.5555556	5.1298611	8.875	8.3333333	8.1818182	10	1.88	69.31946
NP3098	NP3098	North Platte River	7.6936862	6.7050112	3.0662848	8.675	8.3333333	6.4038003	10	6.44	71.646395
NP3123	NP3123	North Platte River	7.5	7.7777778	2.4224005	7.425	6.6666667	9.0909091	10	1.6	65.603443
NP3124	NP3124	Red Willow Creek	5.6403837	5.1391135	4.8068861	5.3125	4.5602536	5.6782274	8.5	10	62.046705

Table 8. continued.

STORET	NDEQ_ID	Strmname	Natsp*	Natfam	Sensit	Tolrnt	Benthic	Longlive	Alien	Carn	Ibi8
NP3125	NP3125	Wildhorse Drain	4.0893584	4.067413	5.7772011	10	5.6349602	5.0894762	2.89	10	59.435511
NP3126	NP3126	North Platte River	7.7873565	6.6666667	5.803956	5.45	6.6666667	7.2727273	10	1.2	63.559216
NP3127	NP3127	North Platte River	10	7.7777778	6.0896022	9.275	8.3333333	8.1818182	10	1.56	76.521914
NP3128	NP3128	Gering Drain	5.1381248	5.3819025	0	8.1125	4.8234511	5.9564139	10	5.96	56.71549
NP3130	NP3130	North Platte River - Morrill	10	8.1006485	6.3600216	9.325	10	9.4812253	10	1.92	81.483619
NP3131	NP3131	Sheep Creek	1.7745823	3.3333333	2.7989536	10	3.3333333	1.8181818	6.86	2.84	40.94798
RE1211	RE1211	Republican River	10	10	0	2.275	9.3934818	10	10	5.48	71.435602
RE1212	RE1212	Republican River	10	10	0	2.575	7.6388074	10	10	1.36	64.467259
RE2213	RE2213	Flag Creek	7.484759	7.1541476	6.8671853	3.1375	3.4583364	6.011647	10	10	67.641969
RE2214	RE2214	Prairie Dog Creek	5.4945657	4.9878128	0	0.3125	0	6.8816703	10	4.88	40.695686
RE2215	RE2215	Muddy Creek	8.4255113	10	0	0.425	2.9444995	10	10	3.32	56.393764
RE2216	RE2216	Sappa Creek	7.6270451	10	0	0.3625	2.9701485	7.0875402	10	0.08	47.659042
RE2217	RE2217	Beaver Creek	3.6582261	3.5746068	0	4.5875	2.4007898	4.4501039	10	5.72	42.989033
RE2227	RE2227	Deer Creek	5.3607613	4.5141644	0	0	3.2184868	7.5663574	10	2.44	41.374712
RE3218	RE3218	Frenchman Creek	10	10	0	5.45	6.9753899	10	10	7.48	74.881737
RE3219	RE3219	Republican River	8.1649708	9.3799649	9.2723917	10	10	5.3373729	10	0.08	77.793375
RE3220	RE3220	Red Willow Creek	8.3778805	10	0	0.2625	5.839399	8.7356314	10	1.16	55.469264
RE3221	RE3221	Frenchman Creek	9.5807903	10	0	9.6125	6.5657268	10	10	5.32	76.348771
RE3222	RE3222	Medicine Creek	5.9734069	8.5506108	0	7.375	3.0012097	8.9352692	10	0.8	55.794371
RE3223	RE3223	Muddy Creek	8.003165	6.7332748	0	0.9	3.1951378	10	10	10	61.039472
RE3224	RE3224	Medicine Creek	10	9.2456429	0	1.925	2.0087652	10	10	8.76	64.92426
RE3225	RE3225	Republican River	10	10	0	3.9	2.2142883	10	10	8.36	68.09286
RE3226	RE3226	Stinking Water Creek	10	10	0	2.825	9.8777728	10	10	10	78.378466
SP2043	SP2043	Lodgepole Creek	1.5046262	3.691143	0	1.0625	0	0	10	0	20.322836
SP2044	SP2044	Lodgepole Creek	2.897568	5.3009132	0	0.025	2.3675354	2.9317568	10	0.08	29.503467
SP2045	SP2045	Lodgepole Creek	10	10	8.0193344	6.3125	4.1828362	9.2985071	10	10	84.766472
SP2046	SP2046	Lodgepole Creek	5.186786	7.2541195	0	10	2.4439317	6.0237968	10	2.88	54.735792
WH1071	WH1071	Beaver Creek	1.9674093	2.5332769	10	10	3.7479979	2.1353436	8.65	5.4	55.542535
WH1074	WH1074	Big Bordeaux Creek	3.4395792	9.1790776	9.0494369	10	9.7517316	5.2156556	1.18	10	72.269351
WH1075	WH1075	Larabee Creek	6.0165204	7.7788543	7.5280546	6.8125	3.867672	8.7535204	10	10	75.946402
WH1076	WH1076	White River, North Of Chadron	3.0056309	3.6860175	0	0	2.4927594	3.06272	10	2.48	30.90891
WH1077	WH1077	White River - Crawford City Park	2.3686957	3.9037005	5.5272397	10	2.6761832	3.2509003	8.87	5.4	52.495899
WH1078	WH1078	White River, South Of Ft Rob SP	4.1429101	8.0922568	7.863698	10	4.0819588	6.8446418	7.92	10	73.681832
WH1080	WH1080	West Ash Creek	1.4379179	4.1037426	10	10	7.7202193	0	3.85	0	46.38985

Table 8. continued.

*Natsp – Native species richness score (0-10)
Natfam -- Native family richness score (0-10)
Sensit -- Sensitive species richness score (0-10)
Tolrnt – Percent tolerant score (0-10)
Benthic – Native Benthic species richness score (0-10)
Longlive -- Native long-lived species richness score (0-10)
Carn -- Percent carnivores score (0-10)
IBI8 -- Index of biotic integrity scores (total of fish metric scores)

Table 9. Significant differences using Duncan's Multiple Range Analysis of Variance Test ($p<0.05$) between metrics used in the IBI Fish index and the ICI Macroinvertebrate index for the Nebraska Biological Monitoring Program, 2004-2008. (Continuous underlining indicates a similarity between ecoregions. Ecoregion 27 is divided into the western end (27) and the eastern end (271)).

Indices	Ecoregion
IBI Score (fish)	43 42 44 25 27 271 47
ICI Score (Macroinvertebrates)	43 25 42 47 44 271 27 (no significant difference)

Table 10. Summary of macroinvertebrate taxa, frequency of samples, and total number collected from the Nebraska Stream Biological Monitoring Program 2004-2008. (Macroinvertebrate names are sorted alphabetically by Class, Order, and Family.)

Class	Order	Family	Final ID	Frequency	Total counts	Percent
Arachnida			Arachnida (water mites)	26	51	0.015
Crustacea	Amphipoda	Crangonyctidae	Crangonyx	17	505	0.150
Crustacea	Amphipoda	Gammaridae	Gammarus	2	258	0.076
Crustacea	Amphipoda	Talitridae	Hyalella azteca	268	16548	4.904
Crustacea	Decapoda	Cambaridae	Cambaridae	77	269	0.080
Crustacea	Decapoda	Cambaridae	Cambarus	1	5	0.001
Crustacea	Decapoda	Cambaridae	Camelobaetidius	9	207	0.061
Crustacea	Decapoda	Cambaridae	Orconectes	8	20	0.006
Crustacea	Decapoda	Cambaridae	Orconectes immunis	1	1	0.000
Crustacea	Decapoda	Cambaridae	Orconectes virilis	3	5	0.001
Crustacea	Decapoda	Cambaridae	Ormosia	15	35	0.010
Crustacea	Isopoda	Asellidae	Caecidotea	35	2423	0.718
Crustacea	Isopoda	Asellidae	Caecidotea intermedia	3	11	0.003
Enopla	Holonemertea	Tetrastemmatidae	Protanypus	1	1	0.000
Gastropoda	Basommatophora	Lymnaeidae	Fossaria	109	381	0.113
Gastropoda	Basommatophora	Lymnaeidae	Lymnaea	1	5	0.001
Gastropoda	Basommatophora	Lymnaeidae	Stagnicola	6	83	0.025
Gastropoda	Pulmonata	Ancylidae	Ferrissia	11	43	0.013
Gastropoda	Pulmonata	Ancylidae	Ferrissia rivularis	3	21	0.006
Gastropoda	Pulmonata	Physidae	Physa	285	12003	3.557
Gastropoda	Pulmonata	Planorbidae	Gyraulus	11	28	0.008
Gastropoda	Pulmonata	Planorbidae	Helisoma	21	155	0.046
Gastropoda	Pulmonata	Planorbidae	Helisoma trivolvis	11	126	0.037
Gordioda	Gordiidea	Gordiidae	Graphoderus	1	1	0.000
Hirudinea	Pharyngobdellida	Erpobdellidae	Erpobdella punctata	32	64	0.019
Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella	16	72	0.021
Hirudinea	Pharyngobdellida	Erpobdellidae	Mooreobdella microstoma	107	468	0.139
Hirudinea	Rhynchobdellida	Glossiphoniidae	Desserobdella picta	2	2	0.001
Hirudinea	Rhynchobdellida	Glossiphoniidae	Glossiphonia	1	1	0.000
Hirudinea	Rhynchobdellida	Glossiphoniidae	Glossiphonia complanata	7	41	0.012
Hirudinea	Rhynchobdellida	Glossiphoniidae	Glossiphoniidae	4	14	0.004
Hirudinea	Rhynchobdellida	Glossiphoniidae	Helobdella	2	2	0.001
Hirudinea	Rhynchobdellida	Glossiphoniidae	Helobdella stagnalis	19	68	0.020
Hirudinea	Rhynchobdellida	Glossiphoniidae	Helobdella triserialis	9	21	0.006
Hirudinea	Rhynchobdellida	Glossiphoniidae	Helophorus	11	21	0.006
Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella	6	7	0.002
Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella ornata	21	32	0.009
Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella papillifera	7	27	0.008
Hirudinea	Rhynchobdellida	Glossiphoniidae	Placobdella parasitica	1	2	0.001
Hydrozoa	Hydroida	Clavidae	Corisella	1	7	0.002
Insecta	Coleoptera	Dryopidae	Helichus	78	593	0.176
Insecta	Coleoptera	Dytiscidae	Agabus	10	52	0.015
Insecta	Coleoptera	Dytiscidae	Coptotomus	3	4	0.001
Insecta	Coleoptera	Dytiscidae	Dytiscidae	9	25	0.007
Insecta	Coleoptera	Dytiscidae	Hydroporus	62	457	0.135
Insecta	Coleoptera	Dytiscidae	Hydropsyche	10	65	0.019
Insecta	Coleoptera	Dytiscidae	Ilybius	3	40	0.012

Table 10. continued.

Class	Order	Family	Final ID	Frequency	Total counts	Percent
Insecta	Coleoptera	Dytiscidae	Laccophilus	45	101	0.030
Insecta	Coleoptera	Dytiscidae	Liodessus	1	2	0.001
Insecta	Coleoptera	Dytiscidae	Liodessus affinis	18	61	0.018
Insecta	Coleoptera	Elmidae	Dubiraphia	207	4669	1.384
Insecta	Coleoptera	Elmidae	Dubiraphia vittata	61	2976	0.882
Insecta	Coleoptera	Elmidae	Macronychus glabratus	120	621	0.184
Insecta	Coleoptera	Elmidae	Microcylloepus	51	1291	0.383
Insecta	Coleoptera	Elmidae	Stenelmis	115	2719	0.806
Insecta	Coleoptera	Elmidae	Stenelmis humerosa	10	30	0.009
Insecta	Coleoptera	Gyrinidae	Dineutus	15	52	0.015
Insecta	Coleoptera	Gyrinidae	Gyrinus	21	37	0.011
Insecta	Coleoptera	Haliplidae	Haliplus	1	4	0.001
Insecta	Coleoptera	Haliplidae	Peltodytes	80	738	0.219
Insecta	Coleoptera	Hydrophilidae	Berosus	144	1458	0.432
Insecta	Coleoptera	Hydrophilidae	Cymbiodyta	1	1	0.000
Insecta	Coleoptera	Hydrophilidae	Enochrus	65	347	0.103
Insecta	Coleoptera	Hydrophilidae	Hydrophilidae	12	41	0.012
Insecta	Coleoptera	Hydrophilidae	Laccobius	9	17	0.005
Insecta	Coleoptera	Hydrophilidae	Paracymus	45	115	0.034
Insecta	Coleoptera	Hydrophilidae	Sphaeridium	6	40	0.012
Insecta	Coleoptera	Hydrophilidae	Tropisternus	110	371	0.110
Insecta	Collembola	Poduridae	Podura	10	10	0.003
Insecta	Collembola		Collembola	24	80	0.024
Insecta	Diptera	Athericidae	Atherix	3	5	0.001
Insecta	Diptera	Ceratopogonidae	Atrichopogon	10	32	0.009
Insecta	Diptera	Ceratopogonidae	Bezzia	2	15	0.004
Insecta	Diptera	Ceratopogonidae	Ceratopogonidae	155	1234	0.366
Insecta	Diptera	Ceratopogonidae	Forcipomyia	12	34	0.010
Insecta	Diptera	Ceratopogonidae	Mallochohelea	2	2	0.001
Insecta	Diptera	Ceratopogonidae	Palpomyia	2	6	0.002
Insecta	Diptera	Ceratopogonidae	Sphaeromias	2	9	0.003
Insecta	Diptera	Chironomidae	Ablabesmyia	153	1081	0.320
Insecta	Diptera	Chironomidae	Axarus	3	6	0.002
Insecta	Diptera	Chironomidae	Brillia	49	128	0.038
Insecta	Diptera	Chironomidae	Brychius	2	18	0.005
Insecta	Diptera	Chironomidae	Chaetocladius	4	67	0.020
Insecta	Diptera	Chironomidae	Chernovskiia	1	1	0.000
Insecta	Diptera	Chironomidae	Chironomidae	1	1	0.000
Insecta	Diptera	Chironomidae	Chironomini	9	83	0.025
Insecta	Diptera	Chironomidae	Chironomus	150	7189	2.130
Insecta	Diptera	Chironomidae	Cladopelma	3	5	0.001
Insecta	Diptera	Chironomidae	Cladotanytarsus	111	2002	0.593
Insecta	Diptera	Chironomidae	Clinotanypus	20	411	0.122
Insecta	Diptera	Chironomidae	Coelotanypus	9	71	0.021
Insecta	Diptera	Chironomidae	Conchapelopia	5	22	0.007
Insecta	Diptera	Chironomidae	Corynoneura	13	26	0.008
Insecta	Diptera	Chironomidae	Cricotopus	87	330	0.098
Insecta	Diptera	Chironomidae	Cricotopus bicinctus	121	2922	0.866
Insecta	Diptera	Chironomidae	Cricotopus sylvestris	17	80	0.024

Table 10. continued.

Class	Order	Family	Final ID	Frequency	Total counts	Percent
Insecta	Diptera	Chironomidae	Cricotopus tremulus	136	2971	0.880
Insecta	Diptera	Chironomidae	Cricotopus trifascia	37	869	0.258
Insecta	Diptera	Chironomidae	Cryptochironomus	163	1136	0.337
Insecta	Diptera	Chironomidae	Cryptochironomus fulvus	20	103	0.031
Insecta	Diptera	Chironomidae	Cryptotendipes	61	1062	0.315
Insecta	Diptera	Chironomidae	Diamesa	5	12	0.004
Insecta	Diptera	Chironomidae	Dicrotendipes	175	1875	0.556
Insecta	Diptera	Chironomidae	Dicrotendipes neomodestus	7	129	0.038
Insecta	Diptera	Chironomidae	Endochironomus	15	87	0.026
Insecta	Diptera	Chironomidae	Eukiefferiella	25	163	0.048
Insecta	Diptera	Chironomidae	Gillotia	1	2	0.001
Insecta	Diptera	Chironomidae	Glyptotendipes	25	695	0.206
Insecta	Diptera	Chironomidae	Harnischia	22	179	0.053
Insecta	Diptera	Chironomidae	Labiobaetis	7	141	0.042
Insecta	Diptera	Chironomidae	Labrundinia	38	239	0.071
Insecta	Diptera	Chironomidae	Larsia	42	333	0.099
Insecta	Diptera	Chironomidae	Limnophyes	16	33	0.010
Insecta	Diptera	Chironomidae	Lopescladius	5	32	0.009
Insecta	Diptera	Chironomidae	Macropelopia	3	6	0.002
Insecta	Diptera	Chironomidae	Macropelopiini	1	5	0.001
Insecta	Diptera	Chironomidae	Micropsectra	9	237	0.070
Insecta	Diptera	Chironomidae	Microtendipes	9	28	0.008
Insecta	Diptera	Chironomidae	Nanocladius	101	653	0.194
Insecta	Diptera	Chironomidae	Odontomesa	10	53	0.016
Insecta	Diptera	Chironomidae	Orthocladiinae	5	23	0.007
Insecta	Diptera	Chironomidae	Orthocladius	37	1343	0.398
Insecta	Diptera	Chironomidae	Orthocladius obumbratus	1	1	0.000
Insecta	Diptera	Chironomidae	Parachaetocladius	1	1	0.000
Insecta	Diptera	Chironomidae	Parachironomus	6	31	0.009
Insecta	Diptera	Chironomidae	Paracladopelma	46	399	0.118
Insecta	Diptera	Chironomidae	Parakiefferiella	23	60	0.018
Insecta	Diptera	Chironomidae	Paralauterborniella	31	130	0.039
Insecta	Diptera	Chironomidae	Parametriocnemus	23	74	0.022
Insecta	Diptera	Chironomidae	Paraphaenocladius	10	244	0.072
Insecta	Diptera	Chironomidae	Paratanytarsus	105	1178	0.349
Insecta	Diptera	Chironomidae	Paratendipes	16	71	0.021
Insecta	Diptera	Chironomidae	Pentaneura	70	540	0.160
Insecta	Diptera	Chironomidae	Phaenopsectra	5	10	0.003
Insecta	Diptera	Chironomidae	Phasganophora	1	4	0.001
Insecta	Diptera	Chironomidae	Polypedilum	111	796	0.236
Insecta	Diptera	Chironomidae	Polypedilum convictum	244	14078	4.172
Insecta	Diptera	Chironomidae	Polypedilum fallax	14	53	0.016
Insecta	Diptera	Chironomidae	Polypedilum illinoense	241	5691	1.686
Insecta	Diptera	Chironomidae	Polypedilum laetum	2	2	0.001
Insecta	Diptera	Chironomidae	Polypedilum scalaenum	54	200	0.059
Insecta	Diptera	Chironomidae	Polypedilum simulans	1	3	0.001
Insecta	Diptera	Chironomidae	Polypedilum tritum	83	4984	1.477
Insecta	Diptera	Chironomidae	Potthastia	1	1	0.000

Table 10. continued.

Class	Order	Family	Final ID	Frequency	Total counts	Percent
Insecta	Diptera	Chironomidae	Procladius	154	4920	1.458
Insecta	Diptera	Chironomidae	Prodiamesa	10	129	0.038
Insecta	Diptera	Chironomidae	Progomphus	2	12	0.004
Insecta	Diptera	Chironomidae	Psectrocladius	1	8	0.002
Insecta	Diptera	Chironomidae	Pseudochironomus	22	179	0.053
Insecta	Diptera	Chironomidae	Pseudorthocladius	1	1	0.000
Insecta	Diptera	Chironomidae	Rheocricotopus	57	1173	0.348
Insecta	Diptera	Chironomidae	Rheotanytarsus	229	9310	2.759
Insecta	Diptera	Chironomidae	Robackia	2	5	0.001
Insecta	Diptera	Chironomidae	Robackia demeijerei	3	7	0.002
Insecta	Diptera	Chironomidae	Saetheria	32	903	0.268
Insecta	Diptera	Chironomidae	Stempellinella	2	6	0.002
Insecta	Diptera	Chironomidae	Stenochironomus	23	102	0.030
Insecta	Diptera	Chironomidae	Stictochironomus	64	2075	0.615
Insecta	Diptera	Chironomidae	Tanypodinae	19	56	0.017
Insecta	Diptera	Chironomidae	Tanypus	26	1133	0.336
Insecta	Diptera	Chironomidae	Tanypus punctipennis	1	4	0.001
Insecta	Diptera	Chironomidae	Tanytarsus	256	8622	2.555
Insecta	Diptera	Chironomidae	Thienemannia	1	3	0.001
Insecta	Diptera	Chironomidae	Thienemanniella	98	572	0.170
Insecta	Diptera	Chironomidae	Thienemannimyia	303	3725	1.104
Insecta	Diptera	Chironomidae	Tribelos	12	27	0.008
Insecta	Diptera	Chironomidae	Tvetenia	27	213	0.063
Insecta	Diptera	Chironomidae	Tvetenia bavarica	1	3	0.001
Insecta	Diptera	Chironomidae	Xenochironomus	2	2	0.001
Insecta	Diptera	Chironomidae	Zavrelimyia	7	42	0.012
Insecta	Diptera	Culicidae	Anopheles	55	485	0.144
Insecta	Diptera	Culicidae	Culex	1	3	0.001
Insecta	Diptera	Culicidae	Culicidae	2	4	0.001
Insecta	Diptera	Dixidae	Dixa	5	27	0.008
Insecta	Diptera	Dixidae	Dixella	6	11	0.003
Insecta	Diptera	Dolichopodidae	Dolichopodidae	9	16	0.005
Insecta	Diptera	Empididae	Chelifera	4	4	0.001
Insecta	Diptera	Empididae	Clinocera	1	3	0.001
Insecta	Diptera	Empididae	Hemerodromia	101	460	0.136
Insecta	Diptera	Ephydridae	Ephydra	1	8	0.002
Insecta	Diptera	Ephydridae	Ephydridae	34	322	0.095
Insecta	Diptera	Muscidae	Limnophora	1	4	0.001
Insecta	Diptera	Muscidae	Muscidae	9	44	0.013
Insecta	Diptera	Psychodidae	Pericoma	5	22	0.007
Insecta	Diptera	Psychodidae	Psychoda	7	9	0.003
Insecta	Diptera	Sciomyzidae	Sciomyzidae	4	5	0.001
Insecta	Diptera	Sciomyzidae	Scirtes	25	200	0.059
Insecta	Diptera	Simuliidae	Simuliidae	218	13630	4.039
Insecta	Diptera	Simuliidae	Simulium	27	2609	0.773
Insecta	Diptera	Stratiomyidae	Caloparyphus	4	6	0.002
Insecta	Diptera	Stratiomyidae	Euparyphus	1	1	0.000
Insecta	Diptera	Stratiomyidae	Nemotelus	3	5	0.001
Insecta	Diptera	Stratiomyidae	Stratiomyidae	16	37	0.011

Table 10. continued.

Class	Order	Family	Final ID	Frequency	Total counts	Percent
Insecta	Diptera	Stratiomyidae	Stratiomys	11	18	0.005
Insecta	Diptera	Tabanidae	Chrysops	39	71	0.021
Insecta	Diptera	Tabanidae	Tabanidae	1	1	0.000
Insecta	Diptera	Tabanidae	Tabanus	4	28	0.008
Insecta	Diptera	Tipulidae	Antocha	1	2	0.001
Insecta	Diptera	Tipulidae	Dicranota	5	10	0.003
Insecta	Diptera	Tipulidae	Erioptera	3	5	0.001
Insecta	Diptera	Tipulidae	Hexatoma	3	14	0.004
Insecta	Diptera	Tipulidae	Limnophila	2	4	0.001
Insecta	Diptera	Tipulidae	Limonia	23	82	0.024
Insecta	Diptera	Tipulidae	Pilaria	1	4	0.001
Insecta	Diptera	Tipulidae	Pseudolimnophila	2	2	0.001
Insecta	Diptera	Tipulidae	Tipula	21	216	0.064
Insecta	Diptera	Tipulidae	Tipulidae	23	39	0.012
Insecta	Ephemeroptera	Baetidae	Acentrella	90	1914	0.567
Insecta	Ephemeroptera	Baetidae	Baetis	166	9810	2.907
Insecta	Ephemeroptera	Baetidae	Baetis intercalaris	3	14	0.004
Insecta	Ephemeroptera	Baetidae	Callibaetis	82	802	0.238
Insecta	Ephemeroptera	Baetidae	Centroptilum	18	40	0.012
Insecta	Ephemeroptera	Baetidae	Fallceon	210	30493	9.036
Insecta	Ephemeroptera	Baetidae	Paracloeodes	1	252	0.075
Insecta	Ephemeroptera	Baetidae	Paracloeodes minutus	102	6237	1.848
Insecta	Ephemeroptera	Baetidae	Pseudocloeon	66	3297	0.977
Insecta	Ephemeroptera	Caenidae	Brachycercus	15	29	0.009
Insecta	Ephemeroptera	Caenidae	Caenis	288	10477	3.105
Insecta	Ephemeroptera	Ephemereliidae	Dasyhelea	18	42	0.012
Insecta	Ephemeroptera	Ephemerellidae	Ephemerella	3	4	0.001
Insecta	Ephemeroptera	Ephemeridae	Hexagenia	73	255	0.076
Insecta	Ephemeroptera	Heptageniidae	Heptagenia	172	3479	1.031
Insecta	Ephemeroptera	Heptageniidae	Heptagenia diabasia	18	323	0.096
Insecta	Ephemeroptera	Heptageniidae	Leucrocuta	5	64	0.019
Insecta	Ephemeroptera	Heptageniidae	Stenacron	4	64	0.019
Insecta	Ephemeroptera	Heptageniidae	Stenacron interpunctatum	75	1227	0.364
Insecta	Ephemeroptera	Heptageniidae	Stenonema	5	13	0.004
Insecta	Ephemeroptera	Heptageniidae	Stenonema femoratum	3	5	0.001
Insecta	Ephemeroptera	Heptageniidae	Stenonema integrum	8	74	0.022
Insecta	Ephemeroptera	Heptageniidae	Stenonema mexicanum	2	4	0.001
Insecta	Ephemeroptera	Heptageniidae	Stenonema terminatum	1	8	0.002
Insecta	Ephemeroptera	Heptageniidae	Stenonema tripunctatum	1	25	0.007
Insecta	Ephemeroptera	Leptophlebiidae	Paraleptophlebia	11	195	0.058
Insecta	Ephemeroptera	Oligoneuriidae	Lachlania	2	11	0.003
Insecta	Ephemeroptera	Palingeniidae	Palmacorixa	13	39	0.012
Insecta	Ephemeroptera	Palingeniidae	Pentagenia	1	4	0.001
Insecta	Ephemeroptera	Polymitarcyidae	Tortopus	1	4	0.001
Insecta	Ephemeroptera	Siphlonuridae	Amercaenis	16	1014	0.300
Insecta	Ephemeroptera	Siphlonuridae	Isonychia	140	2650	0.785
Insecta	Ephemeroptera	Tricorythidae	Tricorythodes	288	17135	5.078
Insecta	Hemiptera	Belostomatidae	Belostoma	50	116	0.034

Table 10. continued.

Class	Order	Family	Final ID	Frequency	Total counts	Percent
Insecta	Hemiptera	Corixidae	Corixidae	114	3204	0.949
Insecta	Hemiptera	Corixidae	Sigara	62	419	0.124
Insecta	Hemiptera	Corixidae	Trichocorixa	55	1754	0.520
Insecta	Hemiptera	Gerridae	Gerridae	2	3	0.001
Insecta	Hemiptera	Gerridae	Gerris	9	33	0.010
Insecta	Hemiptera	Gerridae	Metrobates	2	6	0.002
Insecta	Hemiptera	Gerridae	Rheumatobates	6	28	0.008
Insecta	Hemiptera	Gerridae	Trepobates	8	17	0.005
Insecta	Hemiptera	Herbridae	Hesperocorixa	3	4	0.001
Insecta	Hemiptera	Mesoveliidae	Mesovelia	16	74	0.022
Insecta	Hemiptera	Naucoridae	Ambrysus	63	547	0.162
Insecta	Hemiptera	Naucoridae	Nectopsyche	10	37	0.011
Insecta	Hemiptera	Nepidae	Ranatra	1	1	0.000
Insecta	Hemiptera	Notonectidae	Notonecta	3	3	0.001
Insecta	Hemiptera	Pleidae	Neoplea	4	9	0.003
Insecta	Hemiptera	Pleidae	Neoplea striola	13	15	0.004
Insecta	Hemiptera	Pleidae	Paraplea	1	3	0.001
Insecta	Hemiptera	Veliidae	Microvelia	22	136	0.040
Insecta	Hemiptera	Veliidae	Rhagovelia	50	512	0.152
Insecta	Hemiptera		Hemiptera	1	2	0.001
Insecta	Megaloptera	Corydalidae	Chauliodes	1	1	0.000
Insecta	Megaloptera	Corydalidae	Corydalus	2	6	0.002
Insecta	Megaloptera	Corydalidae	Corydalus cornutus	5	21	0.006
Insecta	Megaloptera	Sialidae	Sialis	35	367	0.109
Insecta	Megaloptera		Megaloptera	2	6	0.002
Insecta	Odonata	Aeshnidae	Aeschna	12	37	0.011
Insecta	Odonata	Aeshnidae	Aeschnidae	2	2	0.001
Insecta	Odonata	Aeshnidae	Anax	12	19	0.006
Insecta	Odonata	Aeshnidae	Boyeria	1	1	0.000
Insecta	Odonata	Aeshnidae	Nasiaeschna pentacantha	1	1	0.000
Insecta	Odonata	Calopterygidae	Calopteryx	18	184	0.055
Insecta	Odonata	Calopterygidae	Hetaerina	153	1772	0.525
Insecta	Odonata	Coenagrionidae	Amphiagrion	1	1	0.000
Insecta	Odonata	Coenagrionidae	Argia	82	1115	0.330
Insecta	Odonata	Coenagrionidae	Enallagma	170	3385	1.003
Insecta	Odonata	Cordulegastridae	Epitheca princeps	1	1	0.000
Insecta	Odonata	Cordulegastridae	Epoicocladius	2	3	0.001
Insecta	Odonata	Gomphidae	Dromogomphus	1	24	0.007
Insecta	Odonata	Gomphidae	Gomphus	81	275	0.081
Insecta	Odonata	Gomphidae	Ophiogomphus	30	129	0.038
Insecta	Odonata	Gomphidae	Progomphus obscurus	3	42	0.012
Insecta	Odonata	Libellulidae	Erythemis	2	3	0.001
Insecta	Odonata	Libellulidae	Libellula	4	8	0.002
Insecta	Odonata	Libellulidae	Libellulidae	4	20	0.006
Insecta	Odonata	Libellulidae	Perithemis	1	1	0.000
Insecta	Odonata	Libellulidae	Plathemis	43	736	0.218
Insecta	Plecoptera	Perlidae	Acroneuria abnormis	1	1	0.000
Insecta	Plecoptera	Perlidae	Neoperla	1	1	0.000

Table 10. continued.

Class	Order	Family	Final ID	Frequency	Total counts	Percent
Insecta	Plecoptera	Perlidae	Perlesta	7	11	0.003
Insecta	Plecoptera	Perlodidae	Isoperla	2	5	0.001
Insecta	Plecoptera	Pteronarcidae	Pteronarcys	15	37	0.011
Insecta	Plecoptera	Taeniopterygidae	Taeniopteryx burski	1	25	0.007
Insecta	Trichoptera	Brachycentridae	Brachycentridae	1	4	0.001
Insecta	Trichoptera	Brachycentridae	Brachycentrus	74	5797	1.718
Insecta	Trichoptera	Helicopsychidae	Helicopsyche	15	1129	0.335
Insecta	Trichoptera	Helicopsychidae	Helicopsyche borealis	9	52	0.015
Insecta	Trichoptera	Hydropsychidae	Ceratopsyche	2	7	0.002
Insecta	Trichoptera	Hydropsychidae	Ceratopsyche bronta	3	9	0.003
Insecta	Trichoptera	Hydropsychidae	Ceratopsyche morosa	29	393	0.116
Insecta	Trichoptera	Hydropsychidae	Cercobrachys	13	34	0.010
Insecta	Trichoptera	Hydropsychidae	Cheumatopsyche	243	20484	6.070
Insecta	Trichoptera	Hydropsychidae	Hydropsyche betteni	45	4052	1.201
Insecta	Trichoptera	Hydropsychidae	Hydropsyche bidens	3	46	0.014
Insecta	Trichoptera	Hydropsychidae	Hydropsyche occidentalis	50	2793	0.828
Insecta	Trichoptera	Hydropsychidae	Hydropsyche orris	11	144	0.043
Insecta	Trichoptera	Hydropsychidae	Hydropsyche simulans	94	12948	3.837
Insecta	Trichoptera	Hydropsychidae	Potamyia flava	15	3429	1.016
Insecta	Trichoptera	Hydroptilidae	Hydroptila	80	717	0.212
Insecta	Trichoptera	Hydroptilidae	Hydroptilidae	8	111	0.033
Insecta	Trichoptera	Hydroptilidae	Mayatrichia	10	20	0.006
Insecta	Trichoptera	Hydroptilidae	Ochrotrichia	11	52	0.015
Insecta	Trichoptera	Hydroptilidae	Oxyethira	14	53	0.016
Insecta	Trichoptera	Leptoceridae	Ceraclea	1	2	0.001
Insecta	Trichoptera	Leptoceridae	Nectopsyche candida	82	1361	0.403
Insecta	Trichoptera	Leptoceridae	Nectopsyche diarina	125	1878	0.557
Insecta	Trichoptera	Leptoceridae	Oecetis	16	57	0.017
Insecta	Trichoptera	Leptoceridae	Triaenodes	5	5	0.001
Insecta	Trichoptera	Limnephilidae	Hesperophylax	7	37	0.011
Insecta	Trichoptera	Limnephilidae	Plauditus	4	17	0.005
Insecta	Trichoptera	Philopotamidae	Chimarra	3	35	0.010
Insecta	Trichoptera	Polycentropodidae	Neureclipsis	1	2	0.001
Insecta	Trichoptera	Polycentropodidae	Polycentropus	2	2	0.001
Nematoda			Nematoda	1	1	0.000
Oligochaeta	Branchiobdellida	Branchiobdellidae	Cambarincola	1	2	0.001
Oligochaeta	Haplotaxida	Enchytraeidae	Enchytraeidae	7	14	0.004
Oligochaeta	Haplotaxida	Lumbriculidae	Lumbriculidae	4	4	0.001
Oligochaeta	Haplotaxida	Naididae	Chaetogaster	3	4	0.001
Oligochaeta	Haplotaxida	Naididae	Dero	4	25	0.007
Oligochaeta	Haplotaxida	Naididae	Dero digitata	77	1757	0.521
Oligochaeta	Haplotaxida	Naididae	Naididae	1	4	0.001
Oligochaeta	Haplotaxida	Naididae	Nais	4	26	0.008
Oligochaeta	Haplotaxida	Naididae	Nais behningi	20	317	0.094
Oligochaeta	Haplotaxida	Naididae	Nais bretscheri	1	5	0.001
Oligochaeta	Haplotaxida	Naididae	Nais communis	5	6	0.002
Oligochaeta	Haplotaxida	Naididae	Nais pardalis	7	60	0.018
Oligochaeta	Haplotaxida	Naididae	Nais variabilis	35	221	0.065

Table 10. continued.

Class	Order	Family	Final ID	Frequency	Total counts	Percent
Oligochaeta	Haplotaxida	Naididae	Ophidonais serpentina	11	46	0.014
Oligochaeta	Haplotaxida	Naididae	Pristina aequiseta	2	2	0.001
Oligochaeta	Haplotaxida	Naididae	Pristina longiseta	4	9	0.003
Oligochaeta	Haplotaxida	Naididae	Stylaria lacustris	3	6	0.002
Oligochaeta	Haplotaxida	Tubificidae	Aulodrilus	1	1	0.000
Oligochaeta	Haplotaxida	Tubificidae	Aulodrilus pigueti	18	131	0.039
Oligochaeta	Haplotaxida	Tubificidae	Branchiura sowerbyi	5	68	0.020
Oligochaeta	Haplotaxida	Tubificidae	Ilyodrilus templetoni	3	7	0.002
Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus	3	19	0.006
Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus claparedianus	3	67	0.020
Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus hoffmeisteri	67	373	0.111
Oligochaeta	Haplotaxida	Tubificidae	Limnodrilus udekemianus	8	38	0.011
Oligochaeta	Haplotaxida	Tubificidae	Quistradrilus multisetosus	6	55	0.016
Oligochaeta	Haplotaxida	Tubificidae	Tubificidae	270	4882	1.447
Oligochaeta	Lumbiculida	Lumbricidae	Lumbricidae	7	23	0.007
Pelecypoda	Unionoida	Corbiculidae	Corbicula fluminea	2	19	0.006
Pelecypoda	Unionoida	Unionidae	Anodonta grandis	1	3	0.001
Pelecypoda	Unionoida	Unionidae	Unionidae	5	7	0.002
Pelecypoda	Veneroida	Pisidiidae	Musculium	101	2900	0.859
Pelecypoda	Veneroida	Pisidiidae	Musculium transversum	18	271	0.080
Pelecypoda	Veneroida	Pisidiidae	Pisidium	64	942	0.279
Pelecypoda	Veneroida	Sphaeriidae	Sphaeriidae	1	2	0.001
Pelecypoda	Veneroida	Sphaeriidae	Sphaerium	17	161	0.048
Pelecypoda	Veneroida	Sphaeriidae	Sphaerium striatinum	4	86	0.025
Turbellaria	Tricladida	Planariidae	Dugesia tigrina	128	4612	1.367
	Total Taxa/Count	362			332835	

Table 11. Table of macroinvertebrate raw metric values collected from the Nebraska Stream Biological Monitoring Program, 2004-2008. (Column headings are explained at end of table.)

STORET	NDEQ_ID	STRMNAME	COLLDATE*	ECOREG	STR_CLASS	TotalTax	EPTTax	HBI	Dom01Pct
009560	LP1153	Pawnee Creek	09-02-2004	47	WB	58	13	5.72	30.02
009740	SP2042	Lodgepole Creek	07-20-2006	25	CB	15	4	5.76	39.13
009810	NE2185	Lores Branch	07-27-2004	47	WA	36	7	6.31	53.64
010087	LP1023	Pawnee Creek	08-19-2004	47	WB	56	13	5.32	33.04
010112	NE3193	Indian Creek	07-28-2004	47	WA	54	13	6.03	36.93
010150	MP2057	Platte River	07-13-2006	27	WA	42	9	4.75	50.93
010158	NP2106	Blue Creek	08-02-2006	44	CB	39	16	3.54	68.93
010165	SP1031	South Platte River	07-26-2006	27	WA	28	10	5.91	72.64
BB1126	BB1126	Wolf Creek	07-12-2007	47	WB	42	13	5.10	18.49
BB1127	BB1127	Soap Creek	07-12-2007	47	WB	45	8	5.77	23.79
BB1128	BB1128	Pierce Creek	07-13-2007	47	WB	34	6	5.78	47.34
BB1129	BB1129	Cub Creek	07-19-2007	271	WA	16	4	5.11	37.35
BB2130	BB2130	Turkey Creek	11-19-2007	271	WA	21	7	4.07	50.32
BB2131	BB2131	Turkey Creek	11-07-2007	271	WB	26	6	6.00	24.36
BB2132	BB2132	South Fork Swan Creek	07-31-2007	271	WB	22	5	5.89	22.22
BB2133	BB2133	Turkey Creek	11-14-2007	271	WA	20	10	4.88	29.49
BB3134	BB3134	Beaver Creek	09-28-2007	271	WB	25	2	6.62	36.01
BB3135	BB3135	West Fork Big Blue River	10-01-2007	271	WB	47	18	5.48	15.79
BB3136	BB3136	West Fork Big Blue River	11-16-2007	271	WA	20	9	6.47	67.55
BB4137	BB4137	Plum Creek	07-31-2007	271	WB	37	4	6.00	19.85
BB4138	BB4138	Big Blue River	07-31-2007	271	WB	40	7	6.05	36.25
BB4139	BB4139	Lincoln Creek	11-08-2007	271	WB	16	6	5.13	63.24
BB4140	BB4140	Lincoln Creek	11-08-2007	271	WA	24	5	6.24	34.81
EL1113	EL1113	Maple Creek	09-14-2005	47	WA	31	11	6.49	20.35
EL1115	EL1115	Pebble Creek	07-21-2005	47	WA	24	6	6.37	23.22
EL1116	EL1116	Bell Creek	09-21-2005	47	WB	34	6	5.32	18.95
EL1117	EL1117	W. Fork Maple Creek	08-05-2005	47	WB	13	3	4.66	33.13
EL1118	EL1118	E. Fork Maple Creek	08-05-2005	47	WB	27	6	5.18	34.64
EL1119	EL1119	Elkhorn River	08-08-2005	47	WA	22	8	6.15	41.06
EL1120	EL1120	Elkhorn River	09-18-2005	47	WA	22	9	7.57	41.87

Table 11. continued.

STORET	NDEQ_ID	STRMNAME	COLLDATE*	ECOREG	STR_CLASS	TotalTax	EPTTax	HBI	Dom01Pct
EL1121	EL1121	Humbug Creek	08-08-2005	47	WB	46	11	5.15	23.68
EL1122	EL1122	Elkhorn River	08-15-2005	47	WA	12	7	7.23	40.25
EL1123	EL1123	Union Creek	08-10-2005	47	WB	13	0	6.41	32.81
EL2124	EL2124	Middle Logan Creek	08-30-2005	47	WB	31	10	5.68	36.71
EL3125	EL3125	Dry Creek	08-09-2005	47	WB	43	7	5.47	24.81
EL4126	EL4126	Battle Creek	08-09-2005	47	WA	19	2	6.62	20.90
EL4127	EL4127	Elkhorn River	08-26-2005	47	WA	33	13	6.32	35.53
EL4128	EL4128	Elkhorn River	08-16-2005	47	WA	38	16	6.18	24.04
EL4129	EL4129	Clearwater Creek	08-09-2005	42	WA	45	12	5.61	41.15
EL4130	EL4130	Elkhorn River	08-16-2005	42	WA	1	0	6.00	100.00
EL4131	EL4131	Elkhorn River	08-10-2005	44	WA	34	9	5.87	59.15
EL4132	EL4132	Holt Creek	08-11-2005	44	WA	35	8	5.94	55.35
EL4133	EL4133	Holt Creek	08-12-2005	44	WA	41	7	5.66	33.58
LB1117	LB1117	Dry Branch	07-17-2007	271	WA	26	6	6.37	27.55
LB1131	LB1131	Little Blue River	11-15-2007	271	WA	26	10	5.36	18.85
LB2118	LB2118	Little Blue River	09-12-2007	271	WA	33	10	6.13	34.52
LB2119	LB2119	Spring Creek	07-17-2007	271	WB	8	0	4.10	39.19
LB2120	LB2120	Liberty Creek	09-19-2007	271	WB	27	6	5.98	32.81
LB2121	LB2121	Spring Creek	07-19-2007	271	WB	43	9	5.88	26.44
LB2122	LB2122	Little Blue River	09-12-2007	271	WA	35	16	5.52	32.59
LB2123	LB2123	Little Blue River	09-13-2007	271	WA	29	10	6.37	33.60
LB2124	LB2124	Elk Creek	07-18-2007	271	WB	38	9	5.10	24.68
LB2125	LB2125	Big Sandy Creek	09-14-2007	271	WA	36	12	5.76	25.26
LB2126	LB2126	Litle Blue River	09-19-2007	271	WA	47	15	5.72	23.61
LB2127	LB2127	Little Blue River	09-20-2007	271	WA	42	14	6.09	25.25
LB2129	LB2129	Spring Creek	07-18-2007	271	WB	33	6	6.55	59.25
LO1181	LO1181	Beaver Creek	10-03-2008	44	WA	30	9	6.30	19.22
LO1182	LO1182	Cedar River	09-18-2008	44	WA	46	15	6.11	38.53
LO1183	LO1183	Cottonwood Creek	07-25-2008	27	WB	9	0	5.50	38.21
LO1184	LO1184	Beaver Creek	09-17-2008	27	WA	50	18	5.45	38.44

Table 11. continued.

STORET	NDEQ_ID	STRMNAME	COLLDATE*	ECOREG	STR_CLASS	TotalTax	EPTTax	HBI	Dom01Pct
LO2185	LO2185	Mira Creek	10-02-2008	27	WB	7	3	6.31	20.00
LO2186	LO2186	North Loup River	08-06-2008	27	WA	34	13	6.83	29.02
LO2187	LO2187	North Loup River	08-14-2008	44	CB	19	8	5.23	55.56
LO2192	LO2192	North Loup River	08-07-2008	27	WA	31	10	6.13	33.56
LO2200	LO2200	Goose Creek	08-14-2008	44	CB	33	9	5.11	37.72
LO3088	LO3088	Dismal River	08-06-2008	44	CB	21	12	4.70	25.77
LO3165	LO3165	North Fork Dismal River (A)	08-05-2008	44	CB	31	11	3.67	39.13
LO3189	LO3189	Middle Loup River	08-07-2008	27	WA	33	14	6.76	38.15
LO3190	LO3190	Middle Loup River	08-06-2008	44	CB	42	19	5.36	38.86
LO3191	LO3191	Victoria Creek	08-21-2008	27	CB	40	13	4.98	14.89
LO3193	LO3193	Oak Creek	10-02-2008	27	WB	19	3	6.39	51.05
LO4194	LO4194	South Loup River	08-22-2008	27	WA	54	18	5.80	48.27
LO4195	LO4195	South Loup River	08-08-2008	27	WA	38	10	6.56	46.98
LO4196	LO4196	Mud Creek	10-01-2008	27	WB	25	5	5.17	55.97
LO4197	LO4197	Sourth Loup River	10-01-2008	27	WA	38	13	5.90	34.65
LP1170	LP1170	Bachelor Br To Eight Mile Cr.	08-18-2004	47	WB	46	13	5.25	28.81
LP1171	LP1171	Lost Creek	08-27-2004	27	WB	46	9	5.27	29.06
LP1172	LP1172	Shell Creek	08-31-2004	27	WB	14	0	6.51	73.16
LP1173	LP1173	Shell Creek	08-31-2004	47	WB	19	2	5.01	29.67
LP2174	LP2174	Salt Creek	07-20-2004	47	WA	28	6	4.11	37.23
LP2175	LP2175	Wahoo Creek	08-16-2004	47	WA	35	11	2.52	37.49
LP2176	LP2176	Bates Branch	07-21-2004	47	WB	33	6	5.80	38.92
LP2177	LP2177	Middle Creek	08-09-2004	47	WB	38	6	5.90	44.04
LP2178	LP2178	Middle Oak Creek	07-21-2004	47	WB	26	5	3.47	34.77
LP2179	LP2179	Cottonwood Creek	08-02-2004	47	WB	40	3	3.78	29.97
LP2180	LP2180	Silver Creek	08-02-2004	47	WB	36	6	3.76	44.62
LP2181	LP2181	Olive Branch Creek	07-19-2004	47	WB	37	6	6.83	40.83
LP2182	LP2182	Rock Creek	08-24-2004	47	WB	36	4	5.42	30.61
LP2183	LP2183	Clear Creek	08-18-2004	47	WA	56	14	5.60	41.94
LP2184	LP2184	Sand Creek	08-03-2004	47	WB	49	12	4.72	27.64

Table 11. continued.

STORET	NDEQ_ID	STRMNAME	COLLDATE*	ECOREG	STR_CLASS	TotalTax	EPTTax	HBI	Dom01Pct
LP2185	LP2185	Dee Creek	07-26-2004	47	WB	47	7	4.20	24.71
LP2186	LP2186	Wahoo Creek	09-10-2004	47	WB	25	2	6.23	23.54
LP2187	LP2178	Rock Creek	07-16-2004	47	WB	42	7	5.56	25.22
MP1003	MP1003	Clear Creek	07-12-2006	27	CB	15	2	5.45	31.68
MP1063	MP1063	Prairie Creek	07-12-2006	27	WB	30	4	5.50	24.00
MP2064	MP2064	Platte River	07-13-2006	27	WA	39	9	5.05	45.16
MP2065	MP2065	Spring Creek	07-14-2006	27	WA	18	5	5.39	37.68
MP2066	MP2066	Platte River	07-28-2006	27	WA	41	11	4.43	50.84
MP2067	MP2067	Platte River	08-04-2006	25	WA	34	7	5.69	63.49
MT1148	MT1148	S. Branch Papillion Creek	07-20-2005	47	WB	46	10	6.02	40.52
MT1150	MT1150	Big Papillion Creek	09-15-2005	47	WA	30	13	5.16	42.03
MT1151	MT1151	Long Creek	07-20-2005	47	WB	31	8	5.47	34.91
MT1152	MT1152	Mill Creek	08-04-2005	47	WB	36	7	5.82	20.51
MT1153	MT1153	Silver Creek	08-18-2005	47	WB	37	9	4.79	30.13
MT1154	MT1154	Cow Creek	08-24-2005	47	WB	30	6	5.46	32.11
MT1156	MT1156	North Omaha Creek	08-24-2005	47	WB	20	8	5.29	34.35
MT1157	MT1157	Omaha Creek	08-25-2005	47	WB	23	10	5.24	40.65
MT2158	MT2158	Elk Creek	09-08-2005	47	WB	24	4	5.64	73.42
MT2159	MT2159	Elk Creek	08-25-2005	47	WB	20	7	4.89	33.33
MT2160	MT2160	Elk Creek	09-09-2005	47	WB	23	9	5.70	39.43
MT2161	MT2161	Lime Creek	08-30-2005	47	WB	21	5	6.73	51.43
MT2162	MT2162	West Bow Creek	09-08-2005	47	WB	29	9	5.73	40.53
MT2163	MT2163	Unnamed Trib. Norwegian Bow Creek	08-31-2005	47	WB	23	5	5.93	31.14
MT2164	MT2164	Norwegian Bow Creek	09-01-2005	47	WB	32	12	5.38	28.13
MT2165	MT2165	West Bow Creek	09-01-2005	47	WB	42	15	5.80	31.25
MT2166	MT2166	Little Bazile Creek	08-31-2005	47	WB	45	14	6.45	23.27
MT2167	MT2167	Unnamed Trib. Bazile Creek	08-31-2005	47	WB	36	8	5.81	25.27
MT2168	MT2168	Bazile Creek	09-07-2005	47	WA	45	15	7.93	55.16
NE1196	NE1196	Big Slough	09-09-2004	47	WB	44	7	5.75	67.51
NE1197	NE1197	Winnebago Creek	08-12-2004	47	WB	26	4	6.33	38.29

Table 11. continued.

STORET	NDEQ_ID	STRMNAME	COLLDATE*	ECOREG	STR_CLASS	TotalTax	EPTTax	HBI	Dom01Pct
NE2198	NE2198	Big Nemaha River	08-04-2004	47	WA	26	9	6.16	45.58
NE2199	NE2199	Whiskey Run	08-04-2004	47	WB	60	17	5.87	33.37
NE2200	NE2200	Long Branch Creek	08-11-2004	47	WA	34	11	3.82	31.48
NE2201	NE2201	Unnamed Trib. Balls Branch	07-27-2004	47	WB	43	13	6.72	33.77
NE2202	NE2202	Fourmile Creek	08-06-2004	47	WA	60	13	6.01	23.36
NE2203	NE2203	Middle Branch Big Nemaha River	07-29-2004	47	WB	43	10	5.63	30.39
NE2204	NE2204	Muddy Creek	08-12-2004	47	WA	42	14	5.26	29.24
NE2205	NE2205	S. Fork Big Nemaha River	08-03-2004	47	WA	52	21	6.15	41.21
NE2206	NE2206	N. Fork Big Nemaha River	08-11-2004	47	WA	32	8	5.61	30.98
NE2207	NE2207	Mid. Br. Big Nemaha River	07-19-2004	47	WB	28	6	4.30	39.78
NE2208	NE2208	Little Muddy Creek	08-04-2004	47	WB	56	17	6.61	48.62
NE2209	NE2209	Hoosier Creek	07-28-2004	47	WB	46	9	5.54	26.11
NE3210	NE3210	Hooper Creek	07-26-2004	47	WA	31	6	4.33	35.25
NE3211	NE3211	Little Nemaha River	08-13-2004	47	WA	45	15	4.29	26.26
NE3212	NE3212	Sand Creek	07-28-2004	47	WB	48	13	5.20	34.51
NE3213	NE3213	Little Nemaha River	08-13-2004	47	WA	35	17	2.93	55.34
NI1499	NI1499	Ponca Creek	09-18-2008	42	WA	45	15	4.63	43.87
NI2078	NI2078	Middle Branch Eagle Creek	07-24-2008	42	CB	25	11	4.79	52.32
NI2500	NI2500	Verdigre Creek	09-17-2008	42	WA	27	11	5.20	37.22
NI2501	NI2501	Spring Creek	07-24-2008	42	CB	33	8	5.39	23.29
NI3180	NI3180	Muleshoe Creek	07-30-2008	43	CB	48	14	4.89	32.30
NI3270	NI3270	Boardman Creek	08-14-2008	44	CA	32	9	3.13	58.26
NI3503	NI3503	South Fork Plum Creek	07-31-2008	44	CB	31	10	3.55	42.86
NI3504	NI3504	Gordon Creek	08-13-2008	44	CB	35	11	3.43	45.95
NI3505	NI3505	Burton Creek	07-31-2008	43	CB	39	12	6.98	46.03
NI3506	NI3506	Willow Creek	07-29-2008	43	CB	36	8	5.35	36.65
NI3507	NI3507	Plum Creek	07-31-2008	43	CB	28	10	5.43	37.34
NI3509	NI3509	Minnechaduza Creek	08-12-2008	43	CB	31	11	4.95	42.32
NI3510	NI3510	Minnechaduza Creek (A)	08-12-2008	43	CB	42	10	5.91	30.74
NI3511	NI3511	Bone Creek	07-29-2008	44	CB	41	12	5.28	19.32

Table 11. continued.

STORET	NDEQ_ID	STRMNAME	COLLDATE*	ECOREG	STR_CLASS	TotalTax	EPTTax	HBI	Dom01Pct
NI3520	NI3520	Fairfield Creek	07-30-2008	43	CA	48	17	2.57	58.34
NI4278	NI4278	Dry Creek	07-15-2008	44	CB	26	6	6.02	48.93
NI4514	NI4514	Niobrara River - Near Merriman	08-13-2008	44	WA	37	13	6.21	36.38
NI4515	NI4515	Niobrara River Near Hay Springs	07-16-2008	25	WA	49	13	3.43	42.00
NI4516	NI4516	Niobrara River Near Harrison	07-17-2008	25	CB	24	6	5.75	52.06
NI4517	NI4517	Rush Creek	07-16-2008	44	WB	36	7	5.16	40.81
NP1114	NP1114	North Platte River	08-11-2006	27	WA	27	12	5.16	34.38
NP1115	NP1115	North Platte River	08-09-2006	27	CB	40	13	5.53	29.62
NP1116	NP1116	Birdwood Creek	08-01-2006	44	CB	35	16	5.05	27.49
NP1117	NP1117	North Platte River	08-10-2006	27	CB	41	15	6.50	38.65
NP1118	NP1118	Whitetail Creek	07-27-2006	25	CB	38	13	5.40	41.89
NP2119	NP2119	Blue Creek	07-27-2006	44	CB	41	14	4.40	29.33
NP2120	NP2120	Blue Creek	08-02-2006	25	CB	24	10	4.99	78.86
NP2121	NP2121	North Platte River	08-03-2006	25	WA	28	9	5.88	44.01
NP2122	NP2122	North Platte River	08-03-2006	25	WA	34	13	5.62	48.45
NP3066	NP3066	North Platte River	09-20-2006	25	CB	51	15	5.98	26.31
NP3098	NP3098	North Platte River	08-17-2006	25	CB	50	15	5.94	83.84
NP3123	NP3123	North Platte River	08-16-2006	25	CB	47	13	5.84	50.61
NP3124	NP3124	Red Willow Creek	09-19-2006	25	CA	47	15	5.15	28.11
NP3125	NP3125	Wildhorse Drain	09-18-2006	25	CB	44	11	4.60	41.14
NP3126	NP3126	North Platte River	09-19-2006	25	CB	48	15	5.73	32.68
NP3127	NP3127	North Platte River	08-18-2006	25	CB	43	13	5.34	21.52
NP3128	NP3128	Gering Drain	09-19-2006	25	WB	22	5	6.06	41.86
NP3130	NP3130	North Platte River - Morrill	08-17-2006	25	CB	54	18	5.29	31.50
NP3131	NP3131	Sheep Creek	09-20-2006	25	CB	40	8	5.94	44.95
RE1211	RE1211	Republican River	09-05-2007	27	WA	43	10	5.12	32.64
RE1212	RE1212	Republican River	09-07-2007	27	WA	33	8	5.49	34.86
RE2213	RE2213	Flag Creek	08-08-2007	27	WB	24	4	6.42	43.62
RE2214	RE2214	Prairie Dog Creek	07-25-2007	27	WB	22	2	6.32	27.21
RE2215	RE2215	Muddy Creek	08-16-2007	27	WA	25	7	6.33	33.09

Table 11. continued.

STORET	NDEQ_ID	STRMNAME	COLLDATE*	ECOREG	STR_CLASS	TotalTax	EPTTax	HBI	Dom01Pct
RE2216	RE2216	Sappa Creek	07-25-2007	27	WB	32	11	5.32	29.90
RE2217	RE2217	Beaver Creek	07-27-2007	27	WB	17	1	6.14	45.00
RE2227	RE2227	Deer Creek	08-06-2007	27	WB	35	7	5.98	32.50
RE2227	RE2227	Deer Creek	08-16-2007	27	WB	14	0	3.69	29.91
RE3218	RE3218	Frenchman Creek	08-30-2007	27	CB	35	12	5.49	20.71
RE3219	RE3219	Republican River	07-26-2007	25	WA	9	4	5.74	58.21
RE3220	RE3220	Red Willow Creek	08-09-2007	27	WA	31	12	6.29	62.93
RE3221	RE3221	Frenchman Creek	07-26-2007	25	CB	56	12	5.50	20.44
RE3222	RE3222	Medicine Creek	08-09-2007	27	WA	36	13	4.95	28.68
RE3223	RE3223	Muddy Creek	08-17-2007	27	WB	38	5	6.12	24.51
RE3224	RE3224	Medicine Creek	08-31-2007	27	WB	40	10	6.52	57.54
RE3225	RE3225	Republican River	08-30-2007	27	WA	22	8	5.18	36.01
RE3226	RE3226	Stinking Water Creek	08-29-2007	25	CB	45	16	4.67	36.27
SP2043	SP2043	Lodgepole Creek	07-19-2006	25	WB	22	5	5.22	31.12
SP2044	SP2044	Lodgepole Creek	07-20-2006	25	WB	15	3	4.32	79.07
SP2045	SP2045	Lodgepole Creek	07-19-2006	25	CB	29	7	5.35	27.91
SP2046	SP2046	Lodgepole Creek	07-20-2006	25	CB	22	4	7.53	77.43
WH1038	SP2046	Lodgepole Creek	07-17-2008	25	CB	35	13	4.15	28.92
WH1071	WH1071	Beaver Creek	07-10-2008	25	CA	23	5	3.63	34.13
WH1074	WH1074	Big Bordeaux Creek	07-10-2008	25	CB	35	10	5.10	27.15
WH1075	WH1075	Larabee Creek	07-10-2008	25	CB	32	12	3.14	53.81
WH1076	WH1076	White River, North Of Chadron	07-08-2008	25	CB	36	13	5.30	33.22
WH1077	WH1077	White River - Crawford City Park	07-09-2008	25	CB	54	18	3.82	34.65
WH1078	WH1078	White River, South Of Ft Rob SP	07-17-2008	25	CB	30	10	4.07	43.99
WH1080	WH1080	West Ash Creek	07-09-2008	25	CB	35	8	4.27	27.71

Table 11. continued.

*CollDate – Collection Date
Ecoreg – Ecoregion
Str_Class – Stream classification: WA – Warm Water A, Wb –Warm Water B, CA –Coldwater A, and CB –Coldwater B
TotalTax –Total macroinvertebrate species collected
EPTTax – EPT (Ephemeroptera, Plecoptera, and Trichoptera) taxa collected
HBI -- Hisenhoff Bioltic Index (tolerance values are slightly modified for Nebraska)
Dom01Pct -- Percent value of dominant taxa in sample

Table 12. Table of macroinvertebrate metric scores collected for the Nebraska Biological Monitoring Program, 2008-2008. (Column headings are explained at end of table.)

STORET	NDEQ_ID	STRMNAME	COLLDATE*	TotTxSc	EPTSc	HBISc	Dom01Sc	ICI or BugSc
009560	LP1153	Pawnee Creek	09-02-2004	5	3	5	7	20
009740	SP2042	Lodgepole Creek	07-20-2006	1	1	5	5	12
009810	NE2185	Lores Branch	07-27-2004	1	1	1	1	4
010087	LP1023	Pawnee Creek	08-19-2004	5	3	7	7	22
010112	NE3193	Indian Creek	07-28-2004	5	3	3	5	16
010150	MP2057	Platte River	07-13-2006	1	1	7	1	10
010158	NP2106	Blue Creek	08-02-2006	1	5	7	1	14
010165	SP1031	South Platte River	07-26-2006	1	3	3	1	8
BB1126	BB1126	Wolf Creek	07-12-2007	1	3	7	7	18
BB1127	BB1127	Soap Creek	07-12-2007	3	1	5	7	16
BB1128	BB1128	Pierce Creek	07-13-2007	1	1	5	3	10
BB1129	BB1129	Cub Creek	07-19-2007	1	1	7	5	14
BB2130	BB2130	Turkey Creek	11-19-2007	1	1	7	1	10
BB2131	BB2131	Turkey Creek	11-07-2007	1	1	3	7	12
BB2132	BB2132	South Fork Swan Creek	07-31-2007	1	1	5	7	14
BB2133	BB2133	Turkey Creek	11-14-2007	1	3	7	7	18
BB3134	BB3134	Beaver Creek	09-28-2007	1	1	1	5	8
BB3135	BB3135	West Fork Big Blue River	10-01-2007	3	5	5	7	20
BB3136	BB3136	West Fork Big Blue River	11-16-2007	1	1	1	1	4
BB4137	BB4137	Plum Creek	07-31-2007	1	1	3	7	12
BB4138	BB4138	Big Blue River	07-31-2007	1	1	3	5	10
BB4139	BB4139	Lincoln Creek	11-08-2007	1	1	7	1	10
BB4140	BB4140	Lincoln Creek	11-08-2007	1	1	1	5	8
EL1113	EL1113	Maple Creek	09-14-2005	1	3	1	7	12
EL1115	EL1115	Pebble Creek	07-21-2005	1	1	1	7	10
EL1116	EL1116	Bell Creek	09-21-2005	1	1	7	7	16
EL1117	EL1117	W. Fork Maple Creek	08-05-2005	1	1	7	7	16
EL1118	EL1118	E. Fork Maple Creek	08-05-2005	1	1	7	5	14
EL1119	EL1119	Elkhorn River	08-08-2005	1	1	3	5	10

Table 12. continued.

STORET	NDEQ_ID	STRMNAME	COLLDATE	TotTxSc	EPTSc	HBISc	Dom01Sc	BugSc
EL1120	EL1120	Elkhorn River	09-18-2005	1	3	1	5	10
EL1121	EL1121	Humbug Creek	08-08-2005	3	3	7	7	20
EL1122	EL1122	Elkhorn River	08-15-2005	1	1	1	5	8
EL1123	EL1123	Union Creek	08-10-2005	1	1	1	7	10
EL2124	EL2124	Middle Logan Creek	08-30-2005	1	3	5	5	14
EL3125	EL3125	Dry Creek	08-09-2005	3	1	5	7	16
EL4126	EL4126	Battle Creek	08-09-2005	1	1	1	7	10
EL4127	EL4127	Elkhorn River	08-26-2005	1	3	1	5	10
EL4128	EL4128	Elkhorn River	08-16-2005	1	5	3	7	16
EL4129	EL4129	Clearwater Creek	08-09-2005	3	5	5	5	18
EL4130	EL4130	Elkhorn River	08-16-2005	1	1	3	1	6
EL4131	EL4131	Elkhorn River	08-10-2005	1	1	5	1	8
EL4132	EL4132	Holt Creek	08-11-2005	1	1	3	1	6
EL4133	EL4133	Holt Creek	08-12-2005	1	1	5	7	14
LB1117	LB1117	Dry Branch	07-17-2007	1	1	1	7	10
LB1131	LB1131	Little Blue River	11-15-2007	1	3	7	7	18
LB2118	LB2118	Little Blue River	09-12-2007	1	3	3	5	12
LB2119	LB2119	Spring Creek	07-17-2007	1	1	7	5	14
LB2120	LB2120	Liberty Creek	09-19-2007	1	1	3	7	12
LB2121	LB2121	Spring Creek	07-19-2007	3	1	5	7	16
LB2122	LB2122	Little Blue River	09-12-2007	1	5	5	7	18
LB2123	LB2123	Little Blue River	09-13-2007	1	3	1	7	12
LB2124	LB2124	Elk Creek	07-18-2007	1	1	7	7	16
LB2125	LB2125	Big Sandy Creek	09-14-2007	1	5	5	7	18
LB2126	LB2126	Litle Blue River	09-19-2007	3	5	5	7	20
LB2127	LB2127	Little Blue River	09-20-2007	1	5	3	7	16
LB2129	LB2129	Spring Creek	07-18-2007	1	1	1	1	4
LO1181	LO1181	Beaver Creek	10-03-2008	1	1	1	7	10
LO1182	LO1182	Cedar River	09-18-2008	3	5	3	5	16
LO1183	LO1183	Cottonwood Creek	07-25-2008	1	1	5	5	12

Table 12. continued.

STORET	NDEQ_ID	Strmname	COLLDATE	TotTxSc	EPTSc	HBISc	Dom01Sc	BugSc
LO1184	LO1184	Beaver Creek	09-17-2008	3	5	5	5	18
LO2185	LO2185	Mira Creek	10-02-2008	1	1	1	7	10
LO2186	LO2186	North Loup River	08-06-2008	1	5	1	7	14
LO2187	LO2187	North Loup River	08-14-2008	1	1	7	1	10
LO2192	LO2192	North Loup River	08-07-2008	1	3	3	7	14
LO2200	LO2200	Goose Creek	08-14-2008	1	1	7	5	14
LO3088	LO3088	Dismal River	08-06-2008	1	5	7	7	20
LO3165	LO3165	North Fork Dismal River (A)	08-05-2008	1	3	7	5	16
LO3189	LO3189	Middle Loup River	08-07-2008	1	5	1	5	12
LO3190	LO3190	Middle Loup River	08-06-2008	1	7	7	5	20
LO3191	LO3191	Victoria Creek	08-21-2008	1	5	7	7	20
LO3193	LO3193	Oak Creek	10-02-2008	1	1	1	1	4
LO4194	LO4194	South Loup River	08-22-2008	5	5	5	3	18
LO4195	LO4195	South Loup River	08-08-2008	1	3	1	3	8
LO4196	LO4196	Mud Creek	10-01-2008	1	1	7	1	10
LO4197	LO4197	Sourth Loup River	10-01-2008	1	5	3	5	14
LP1170	LP1170	Bachelor Br To Eight Mile Cr.	08-18-2004	3	3	7	7	20
LP1171	LP1171	Lost Creek	08-27-2004	3	1	7	7	18
LP1172	LP1172	Shell Creek	08-31-2004	1	1	1	1	4
LP1173	LP1173	Shell Creek	08-31-2004	1	1	7	7	16
LP2174	LP2174	Salt Creek	07-20-2004	1	1	7	5	14
LP2175	LP2175	Wahoo Creek	08-16-2004	1	3	7	5	16
LP2176	LP2176	Bates Branch	07-21-2004	1	1	5	5	12
LP2177	LP2177	Middle Creek	08-09-2004	1	1	5	3	10
LP2178	LP2178	Middle Oak Creek	07-21-2004	1	1	7	5	14
LP2179	LP2179	Cottonwood Creek	08-02-2004	1	1	7	7	16
LP2180	LP2180	Silver Creek	08-02-2004	1	1	7	3	12
LP2181	LP2181	Olive Branch Creek	07-19-2004	1	1	1	5	8
LP2182	LP2182	Rock Creek	08-24-2004	1	1	5	7	14
LP2183	LP2183	Clear Creek	08-18-2004	5	5	5	5	20

Table 12. continued.

STORET	NDEQ_ID	Strmname	COLLDATE	TotTxSc	EPTSc	HBISc	Dom01Sc	BugSc
LP2184	LP2184	Sand Creek	08-03-2004	3	3	7	7	20
LP2185	LP2185	Dee Creek	07-26-2004	3	1	7	7	18
LP2186	LP2186	Wahoo Creek	09-10-2004	1	1	1	7	10
LP2187	LP2178	Rock Creek	07-16-2004	1	1	5	7	14
MP1003	MP1003	Clear Creek	07-12-2006	1	1	5	7	14
MP1063	MP1063	Prairie Creek	07-12-2006	1	1	5	7	14
MP2064	MP2064	Platte River	07-13-2006	1	1	7	3	12
MP2065	MP2065	Spring Creek	07-14-2006	1	1	7	5	14
MP2066	MP2066	Platte River	07-28-2006	1	3	7	1	12
MP2067	MP2067	Platte River	08-04-2006	1	1	5	1	8
MT1148	MT1148	S. Branch Papillion Creek	07-20-2005	3	3	3	5	14
MT1150	MT1150	Big Papillion Creek	09-15-2005	1	3	7	5	16
MT1151	MT1151	Long Creek	07-20-2005	1	1	5	5	12
MT1152	MT1152	Mill Creek	08-04-2005	1	1	5	7	14
MT1153	MT1153	Silver Creek	08-18-2005	1	3	7	7	18
MT1154	MT1154	Cow Creek	08-24-2005	1	1	5	7	14
MT1156	MT1156	North Omaha Creek	08-24-2005	1	1	7	5	14
MT1157	MT1157	Omaha Creek	08-25-2005	1	3	7	5	16
MT2158	MT2158	Elk Creek	09-08-2005	1	1	5	1	8
MT2159	MT2159	Elk Creek	08-25-2005	1	1	7	7	16
MT2160	MT2160	Elk Creek	09-09-2005	1	3	5	5	14
MT2161	MT2161	Lime Creek	08-30-2005	1	1	1	1	4
MT2162	MT2162	West Bow Creek	09-08-2005	1	3	5	5	14
MT2163	MT2163	Unnamed Trib. Norwegian Bow Creek	08-31-2005	1	1	3	7	12
MT2164	MT2164	Norwegian Bow Creek	09-01-2005	1	3	7	7	18
MT2165	MT2165	West Bow Creek	09-01-2005	1	5	5	7	18
MT2166	MT2166	Little Bazile Creek	08-31-2005	3	5	1	7	16
MT2167	MT2167	Unnamed Trib. Bazile Creek	08-31-2005	1	1	5	7	14
MT2168	MT2168	Bazile Creek	09-07-2005	3	5	1	1	10
NE1196	NE1196	Big Slough	09-09-2004	3	1	5	1	10

Table 12. continued.

STORET	NDEQ_ID	Strmname	COLLDATE	TotTxSc	EPTSc	HBISc	Dom01Sc	BugSc
NE1197	NE1197	Winnebago Creek	08-12-2004	1	1	1	5	8
NE2198	NE2198	Big Nemaha River	08-04-2004	1	3	3	3	10
NE2199	NE2199	Whiskey Run	08-04-2004	5	7	5	7	24
NE2200	NE2200	Long Branch Creek	08-11-2004	1	3	7	7	18
NE2201	NE2201	Unnamed Trib. Balls Branch	07-27-2004	3	3	1	7	14
NE2202	NE2202	Fourmile Creek	08-06-2004	5	3	3	7	18
NE2203	NE2203	Middle Branch Big Nemaha River	07-29-2004	3	3	5	7	18
NE2204	NE2204	Muddy Creek	08-12-2004	1	5	7	7	20
NE2205	NE2205	S. Fork Big Nemaha River	08-03-2004	5	7	3	5	20
NE2206	NE2206	N. Fork Big Nemaha River	08-11-2004	1	1	5	7	14
NE2207	NE2207	Mid. Br. Big Nemaha River	07-19-2004	1	1	7	5	14
NE2208	NE2208	Little Muddy Creek	08-04-2004	5	7	1	1	14
NE2209	NE2209	Hoosier Creek	07-28-2004	3	3	5	7	18
NE3210	NE3210	Hooper Creek	07-26-2004	1	1	7	5	14
NE3211	NE3211	Little Nemaha River	08-13-2004	3	5	7	7	22
NE3212	NE3212	Sand Creek	07-28-2004	3	3	7	5	18
NE3213	NE3213	Little Nemaha River	08-13-2004	1	7	7	1	16
NI1499	NI1499	Ponca Creek	09-18-2008	3	5	7	5	20
NI2078	NI2078	Middle Branch Eagle Creek	07-24-2008	1	3	7	1	12
NI2500	NI2500	Verdigre Creek	09-17-2008	1	3	7	5	16
NI2501	NI2501	Spring Creek	07-24-2008	1	1	7	7	16
NI3180	NI3180	Muleshoe Creek	07-30-2008	3	5	7	7	22
NI3270	NI3270	Boardman Creek	08-14-2008	1	1	7	1	10
NI3503	NI3503	South Fork Plum Creek	07-31-2008	1	3	7	5	16
NI3504	NI3504	Gordon Creek	08-13-2008	1	3	7	3	14
NI3505	NI3505	Burton Creek	07-31-2008	1	5	1	3	10
NI3506	NI3506	Willow Creek	07-29-2008	1	1	7	5	14
NI3507	NI3507	Plum Creek	07-31-2008	1	3	5	5	14
NI3509	NI3509	Minnechaduza Creek	08-12-2008	1	3	7	5	16
NI3510	NI3510	Minnechaduza Creek (A)	08-12-2008	1	3	3	7	14

Table 12. continued.

STORET	NDEQ_ID	Strmname	COLLDATE	TotTxSc	EPTSc	HBISc	Dom01Sc	BugSc
NI3511	NI3511	Bone Creek	07-29-2008	1	5	7	7	20
NI3520	NI3520	Fairfield Creek	07-30-2008	3	5	7	1	16
NI4278	NI4278	Dry Creek	07-15-2008	1	1	3	3	8
NI4514	NI4514	Niobrara River - Near Merriman	08-13-2008	1	5	1	5	12
NI4515	NI4515	Niobrara River Near Hay Springs	07-16-2008	3	5	7	5	20
NI4516	NI4516	Niobrara River Near Harrison	07-17-2008	1	1	5	1	8
NI4517	NI4517	Rush Creek	07-16-2008	1	1	7	5	14
NP1114	NP1114	North Platte River	08-11-2006	1	5	7	5	18
NP1115	NP1115	North Platte River	08-09-2006	1	5	5	7	18
NP1116	NP1116	Birdwood Creek	08-01-2006	1	5	7	7	20
NP1117	NP1117	North Platte River	08-10-2006	1	5	1	5	12
NP1118	NP1118	Whitetail Creek	07-27-2006	1	5	5	5	16
NP2119	NP2119	Blue Creek	07-27-2006	1	5	7	7	20
NP2120	NP2120	Blue Creek	08-02-2006	1	3	7	1	12
NP2121	NP2121	North Platte River	08-03-2006	1	1	5	3	10
NP2122	NP2122	North Platte River	08-03-2006	1	5	5	3	14
NP3066	NP3066	North Platte River	09-20-2006	3	5	3	7	18
NP3098	NP3098	North Platte River	08-17-2006	3	5	3	1	12
NP3123	NP3123	North Platte River	08-16-2006	3	5	5	1	14
NP3124	NP3124	Red Willow Creek	09-19-2006	3	5	7	7	22
NP3125	NP3125	Wildhorse Drain	09-18-2006	3	3	7	5	18
NP3126	NP3126	North Platte River	09-19-2006	3	5	5	7	20
NP3127	NP3127	North Platte River	08-18-2006	3	5	7	7	22
NP3128	NP3128	Gering Drain	09-19-2006	1	1	3	5	10
NP3130	NP3130	North Platte River- Morrill	08-17-2006	5	5	7	7	24
NP3131	NP3131	Sheep Creek	09-20-2006	1	1	3	3	8
RE1211	RE1211	Republican River	09-05-2007	3	3	7	7	20
RE1212	RE1212	Republican River	09-07-2007	1	1	5	5	12
RE2213	RE2213	Flag Creek	08-08-2007	1	1	1	5	8
RE2214	RE2214	Prairie Dog Creek	07-25-2007	1	1	1	7	10

Table 12. continued.

STORET	NDEQ_ID	Strmname	COLLDATE	TotTxSc	EPTSc	HBISc	Dom01Sc	BugSc
RE2215	RE2215	Muddy Creek	08-16-2007	1	1	1	7	10
RE2216	RE2216	Sappa Creek	07-25-2007	1	3	7	7	18
RE2217	RE2217	Beaver Creek	07-27-2007	1	1	3	3	8
RE2227	RE2227	Deer Creek	08-16-2007	1	1	3	7	12
RE2227	RE2227	Deer Creek	08-16-2007	1	1	7	7	16
RE3218	RE3218	Frenchman Creek	08-30-2007	1	5	5	7	18
RE3219	RE3219	Republican River	07-26-2007	1	1	5	1	8
RE3220	RE3220	Red Willow Creek	08-09-2007	1	5	1	1	8
RE3221	RE3221	Frenchman Creek	07-26-2007	5	5	5	7	22
RE3222	RE3222	Medicine Creek	08-09-2007	1	5	7	7	20
RE3223	RE3223	Muddy Creek	08-17-2007	1	1	3	7	12
RE3224	RE3224	Medicine Creek	08-31-2007	1	3	1	1	6
RE3225	RE3225	Republican River	08-30-2007	1	1	7	5	14
RE3226	RE3226	Stinking Water Creek	08-29-2007	3	5	7	5	20
SP2043	SP2043	Lodgepole Creek	07-19-2006	1	1	7	7	16
SP2044	SP2044	Lodgepole Creek	07-20-2006	1	1	7	1	10
SP2045	SP2045	Lodgepole Creek	07-19-2006	1	1	7	7	16
SP2046	SP2046	Lodgepole Creek	07-20-2006	1	1	1	1	4
WH1071	WH1071	Beaver Creek	07-10-2008	1	1	7	5	14
WH1074	WH1074	Big Bordeaux Creek	07-10-2008	1	3	7	7	18
WH1075	WH1075	Larabee Creek	07-10-2008	1	5	7	1	14
WH1076	WH1076	White River, North Of Chadron	07-08-2008	1	5	7	7	20
WH1077	WH1077	White River - Crawford City Park	07-09-2008	5	5	7	5	22
WH1078	WH1078	White River, South Of Ft Rob SP	07-17-2008	1	5	7	7	20
WH1078	WH1078	White River, South Of Ft Rob SP	07-17-2008	1	3	7	5	16
WH1080	WH1080	West Ash Creek	07-09-2008	1	1	7	7	16

Table 12. continued.

*Colldate – Collection date
TotTxSc – Total number of taxa scores (1-7)
EPTSc – EPT taxa richness scores (1-7)
HBISc – Hisenhoff Biotic Index scores (1-7)
Dom01Sc -- Percent dominant taxon scores (1-7)
ICI or BugSc – ICI score (sum of TotTxSc, EPTSc, HBISc, and Dom01Sc)

Table 13. Minimum, 25th percentile, median, 75th percentile, maximum, and number of samples for macroinvertebrate metrics and macroinvertebrate scores during the Nebraska Stream Biological Monitoring Program, 2004-2008.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
All Ecoregions						
ICI	4	10	14	18	24	205
TotalTax	1	26	34	42	60	205
EPTTax	0	6	9	13	21	205
HBI	2.51	5.1	5.5	6.02	7.93	205
Dom01Pct	14.8	28.91	34.86	43.87	100	205
TotTxScore	1	1	1	1	5	205
EPTScore	1	1	3	5	5	205
HBIScore	1	3	5	7	7	205
Dom01Score	1	5	5	7	7	205
Ecoregion 25						
ICI	8	12	16	20	24	33
TotalTax	9	24	35	47	56	33
EPTTax	3	7	11	13	18	33
HBI	3.13	4.6	5.34	5.74	7.52	33
Dom01Pct	20.43	31.12	41.13	50.61	83.84	33
TotTxScore	1	1	1	3	5	33
EPTScore	1	1	3	5	5	33
HBIScore	1	5	7	7	7	33
Dom01Score	1	1	5	7	7	33
Ecoregion 27						
ICI	4	10	12	18	20	39
TotalTax	7	22	33	40	54	39
EPTTax	0	4	9	12	18	39
HBI	3.69	5.17	6.31	6.31	6.83	39
Dom01Pct	14.89	29.61	34.86	46.97	73.16	39
TotTxScore	1	1	1	1	5	39
EPTScore	1	1	1	5	5	39
HBIScore	1	1	5	7	7	39
Dom01Score	1	3	5	7	7	39
Ecoregion 42						
ICI	6	12	16	18	20	6
TotalTax	1	25	30	45	45	6
EPTTax	0	8	11	12	15	6
HBI	4.63	4.78	5.29	5.61	6	6
Dom01Pct	23.28	37.21	42.51	52.32	100	6
TotTxScore	1	1	1	3	3	6
EPTScore	1	1	3	5	5	6
HBIScore	3	5	7	7	7	6
Dom01Score	1	1	5	5	7	6

Table 13. continued.

Metric		Minimum	25%tile	Median	75%tile	Maximum
Ecoregion 43						
ICI	10	14	14	16	22	7
TotalTax	28	31	39	48	48	7
EPTTax	8	10	11	14	17	7
HBI	2.57	4.89	5.35	5.91	6.97	7
Dom01Pct	30.7	32.3	37.34	46.03	58.34	7
TotTxScore	1	1	1	3	3	7
EPTScore	1	3	3	5	5	7
HBIScore	1	3	7	7	7	7
Dom01Score	1	3	5	7	7	7
Ecoregion 44						
ICI	6	10	14	18	20	20
TotalTax	19	31	35	40	46	20
EPTTax	6	8.5	10.5	13.5	19	20
HBI	3.12	4.03	5.19	5.9	6.29	20
Dom01Pct	19.22	31.45	38.99	52.13	68.93	20
TotTxScore	1	1	1	1	3	20
EPTScore	1	1	3	5	7	20
HBIScore	1	4	7	7	7	20
Dom01Score	1	2	5	7	7	20
Ecoregion 47						
ICI	4	12	14	18	24	75
TotalTax	12	26	35	45	60	75
EPTTax	0	6	8	13	21	75
HBI	2.51	5.15	5.63	6.14	7.93	75
Dom01Pct	18.49	27.63	33.37	40.52	73.41	75
TotTxScore	1	1	1	3	5	75
EPTScore	1	1	1	3	7	75
HBIScore	1	3	5	7	7	75
Dom01Score	1	5	7	7	7	75
Ecoregion 271(Ecoregion 27h)						
ICI	4	10	12	16	20	25
TotalTax	8	22	27	37	47	25
EPTTax	0	6	7	10	18	25
HBI	4.06	5.35	5.89	6.13	6.6	25
Dom01Pct	15.78	24.68	32.58	36.24	67.54	25
TotTxScore	1	1	1	1	3	25
EPTScore	1	1	1	3	5	25
HBIScore	1	3	5	7	7	25
Dom01Score	1	5	7	7	7	25

Table 14. Minimum, 25th percentile, median, 75th percentile, maximum, and number of samples for habitat metrics and habitat scores during the Nebraska Stream Biological Monitoring Program, 2004-2008.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
All Ecoregions						
Nebr.Habitat Index (Habscore5)	22	32	36	42	56	205
Incision/width ratio (Inciswid)	0.01	0.13	0.36	0.9	3.21	205
Percent sand substrate (Pct_SA)	0	0	45.45	98.18	100	205
Percent rowcrop (w1h_crop)	0	0	0	0.66	1	205
Percent riffle (Pct_RI)	0	0	0	0	72	205
Percent undercut banks (xfc_ucb)	0	0	0.004	0.018	0.063	205
Percent overhanging vegetation (pfc_ohc)	0	0.27	0.72	0.9	1	205
Percent silt substrate (Pct_FN)	0	0	5.45	65.45	100	205
Middle Canopy layer along stream bank (xcm)	0.02	0.143	0.242	0.329	0.613	205
Percent pools (Pct_PL)	0	0	0	11	71	205
Percent barren banks (xgb)	0	0.013	0.038	0.095	0.53	205
Incwidscore	1	1	1	1	7	205
Sandscore	1	1	5	7	7	205
Rcopscore	1	1	7	7	7	205
Riffscore	1	1	1	1	7	205
Ubankscore	1	1	1	3	7	205
Ohvegscore	1	1	1	5	7	205
Siltscore	1	3	7	7	7	205
Mcanpyscore	1	5	7	7	7	205
Poolscore	1	1	1	3	7	205
Barrenscore	1	5	7	7	7	205
Ecoregion 25						
Nebr.Habitat Index (Habscore5)	28	36	40	44	48	32
Incision/width ratio (Inciswid)	0.01	0.075	0.23	0.475	1.47	32

Table 14. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Percent sand substrate (Pct_SA)	0	0	39.09	79.09	100	32
Percent rowcrop (w1h_crop)	0	0	0	0.181	1	32
Percent riffle (Pct_RI)	0	0	0	0	20	32
Percent undercut banks (xfc_ucb)	0	0.004	0.009	0.027	0.04	32
Percent overhanging vegetation (pfc_ohc)	0	0.818	0.954	1	1	32
Percent silt substrate (Pct_FN)	0	0	3.63	87.27	100	32
Middle Canopy layer along stream bank (xcm)	0.05	0.077	0.13	0.21	0.36	32
Percent pools (Pct_PL)	0	0	0	10	36	32
Percent barren banks (xgb)	0	0.001	0.0125	0.046	0.1189	32
Incwidscore	1	1	5	7	7	32
Sandscore	1	3	5	7	7	32
Rcopscore	1	6	7	7	7	32
Riffscore	1	1	1	1	3	32
Ubankscore	1	1	1	3	3	32
Ohvegscore	1	3	6	7	7	32
Siltscore	1	1	7	7	7	32
Mcanpyscore	1	1	5	5	7	32
Poolscore	1	1	1	2	7	32
Barrenscore	3	7	7	7	7	32
Ecoregion 27						
Nebr.Habitat Index (Habscore5)	24	32	36	40	50	39
Incision/width ratio (Inciswid)	0.01	0.06	0.23	0.72	2.01	39
Percent sand substrate (Pct_SA)	0	0	72.72	100	100	39
Percent rowcrop (w1h_crop)	0	0	0	0.636	1	39
Percent riffle (Pct_RI)	0	0	0	0	0	39

Table 14. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Percent undercut banks (xfc_ucb)	0	0	0.004	0.018	0.04	39
Percent overhanging vegetation (pfc_ohc)	0	0.363	0.636	0.909	1	39
Percent silt substrate (Pct_FN)	0	0	3.63	67.27	100	39
Middle Canopy layer along stream bank (xcm)	0.05	0.2	0.26	0.346	0.575	39
Percent pools (Pct_PL)	0	0	0	0	47	39
Percent barren banks (xgb)	0	0.009	0.029	0.056	0.53	39
Incwidscore	1	1	5	7	7	39
Sandscore	1	1	3	7	7	39
Rcopscore	1	1	7	7	7	39
Riffscore	1	1	1	1	1	39
Ubankscore	1	1	1	3	3	39
Ohvegscore	1	1	1	5	7	39
Siltscore	1	3	7	7	7	39
Mcanpyscore	1	5	7	7	7	39
Poolscore	1	1	1	1	7	39
Barrenscore	1	5	7	7	7	39
Ecoregion 42						
Nebr.Habitat Index (Habscore5)	36	38	44	52	52	6
Incision/width ratio (Inciswid)	0.03	0.08	0.155	0.21	0.24	6
Percent sand substrate (Pct_SA)	5.45	56.36	90.9	100	100	6
Percent rowcrop (w1h_crop)	0	0	0	0	0	6
Percent riffle (Pct_RI)	0	0	0	0	0	6
Percent undercut banks (xfc_ucb)	0	0.004	0.018	0.027	0.04	6
Percent overhanging vegetation (pfc_ohc)	0.545	0.636	0.909	1	1	6
Percent silt substrate (Pct_FN)	0	0	0	0	0	6

Table 14. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Middle Canopy layer along stream bank (xcm)	0.115	0.128	0.264	0.315	0.368	6
Percent pools (Pct_PL)	0	0	22	59	60	6
Percent barren banks (xgb)	0.002	0.002	0.043	0.167	0.32	6
Incwidscore	5	5	6	7	7	6
Sandscore	1	1	2	5	7	6
Rcopscore	7	7	7	7	7	6
Riffscore	1	1	1	1	1	6
Ubankscore	1	1	2	3	3	6
Ohvegscore	1	1	5	7	7	6
Siltscore	7	7	7	7	7	6
Mcanpyscore	3	3	6	7	7	6
Poolscore	1	1	3	7	7	6
Barrenscore	1	3	6	7	7	6
Ecoregion 43						
Nebr.Habitat Index (Habscore5)	34	39	47	49	54	8
Incision/width ratio (Inciswid)	0.1	0.11	0.13	0.37	1.59	8
Percent sand substrate (Pct_SA)	0	30	61.81	81.81	100	8
Percent rowcrop (w1h_crop)	0	0	0	0	0	8
Percent riffle (Pct_RI)	0	0	0	10.5	24	8
Percent undercut banks (xfc_ucb)	0	0	0.002	0.013	0.027	8
Percent overhanging vegetation (pfc_ohc)	0.454	0.681	0.818	0.954	1	8
Percent silt substrate (Pct_FN)	0	0	0	3.63	32.72	8
Middle Canopy layer along stream bank (xcm)	0.161	0.214	0.264	0.312	0.338	8
Percent pools (Pct_PL)	0	0	4	24	48	8

Table 14. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Percent barren banks (xgb)	0.013	0.026	0.043	0.088	0.111	8
Incwidscore	1	1	6	7	7	8
Sandscore	1	2	5	6	7	8
Rcopscore	7	7	7	7	7	8
Riffscore	1	1	1	2	5	8
Ubankscore	1	1	1	1	3	8
Ohvegscore	1	1	3	6	7	8
Siltscore	7	7	7	7	7	8
Mcanpyscore	5	6	7	7	7	8
Poolscore	1	1	1	5	7	8
Barrenscore	5	5	7	7	7	8
Ecoregion 44						
Nebr.Habitat Index (Habscore5)	28	38	44	46	56	20
Incision/width ratio (Inciswid)	0.01	0.05	0.185	0.275	0.6	20
Percent sand substrate (Pct_SA)	0	52.72	95.45	100	100	20
Percent rowcrop (w1h_crop)	0	0	0	0	0.212	20
Percent riffle (Pct_RI)	0	0	0	0	50	20
Percent undercut banks (xfc_ucb)	0	0.004	0.015	0.027	0.063	20
Percent overhanging vegetation (pfc_ohc)	0.181	0.863	1	1	1	20
Percent silt substrate (Pct_FN)	0	0	0	2.72	100	20
Middle Canopy layer along stream bank (xcm)	0.029	0.088	0.155	0.311	0.525	20
Percent pools (Pct_PL)	0	0	8.5	24.5	71	20
Percent barren banks (xgb)	0	0.004	0.031	0.107	0.268	20
Incwidscore	1	4	5	7	7	20
Sandscore	1	1	1	5	7	20

Table 14. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Rcopscore	5	7	7	7	7	20
Riffscore	1	1	1	1	7	20
Ubankscore	1	1	2	3	7	20
Ohvegscore	1	4	7	7	7	20
Siltscore	1	7	7	7	7	20
Mcanpyscore	1	1	5	7	7	20
Poolscore	1	1	1	3	7	20
Barrenscore	1	5	7	7	7	20
Ecoregion 47						
Nebr.Habitat Index (Habscore5)	22	30	34	38	46	75
Incision/width ratio (Inciswid)	0.01	0.49	0.9	1.3	3.21	75
Percent sand substrate (Pct_SA)	0	0	20	92.72	100	75
Percent rowcrop (w1h_crop)	0	0	0.606	0.757	1	75
Percent riffle (Pct_RI)	0	0		5	72	75
Percent undercut banks (xfc_ucb)	0	0	0	0	0.04	75
Percent overhanging vegetation (pfc_ohc)	0	0.09	0.545	0.909	1	75
Percent silt substrate (Pct_FN)	0	0	27.27	65.45	100	75
Middle Canopy layer along stream bank (xcm)	0.07	0.179	0.261	0.357	0.613	75
Percent pools (Pct_PL)	0	0	1	13	70	75
Percent barren banks (xgb)	0	0.018	0.04	0.095	0.382	75
Incwidscore	1	1	1	1	7	75
Sandscore	1	1	7	7	7	75
Rcopscore	1	1	3	7	7	75
Riffscore	1	1	1	1	7	75
Ubankscore	1	1	1	1	3	75

Table 14. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Ohvegscore	1	1	1	5	7	75
Siltscore	1	3	7	7	7	75
Mcanpyscore	1	5	5	7	7	75
Poolscore	1	1	1	3	7	75
Barrenscore	1	5	7	7	7	75
Ecoregion 271						
Nebr.Habitat Index (Habscore5)	24	28	32	36	44	25
Incision/width ratio (Inciswid)	0.11	0.02	0.29	0.55	1.74	25
Percent sand substrate (Pct_SA)	0	0	20	74.54	100	25
Percent rowcrop (w1h_crop)	0	0	0.454	0.666	0.893	25
Percent riffle (Pct_RI)	0	0	0	0	16	25
Percent undercut banks (xfc_ucb)	0	0.004	0.181	0.027	0.045	25
Percent overhanging vegetation (pfc_ohc)	0	0	0.272	0.454	0.909	25
Percent silt substrate (Pct_FN)	0	0	3.57	90.9	100	25
Middle Canopy layer along stream bank (xcm)	0.081	0.185	0.256	0.309	0.472	25
Percent pools (Pct_PL)	`0	0	0	0	53	25
Percent barren banks (xgb)	0.006	0.059	0.1	0.172	0.456	25
Incwidscore	1	1	3	5	7	25
Sandscore	1	3	7	7	7	25
Rcopscore	1	1	3	7	7	25
Riffscore	1	1	1	1	3	25
Ubankscore	1	1	3	3	5	25
Ohvegscore	1	1	1	1	5	25
Siltscore	1	1	7	7	7	25
Mcanpyscore	1	5	7	7	7	25

Table 14. continued.

Metric	Minimum	25%tile	Median	75%tile	Maximum	Number Sampled
Poolscore	1	1	1	1	7	25
Barrenscore	1	3	5	5	7	25

Table 15. Significant differences using Duncan's Multiple Range Analysis of Variance Test ($p<0.05$) between metrics used in the HBI habitat index for the Nebraska Biological Monitoring Program, 2004-2008. (Metrics not on list show no significant difference. Continuous underlining indicates a similarity between ecoregions and nonoverlapping lines indicate a difference between ecoregions. Ecoregion 27 is divided into the western end (27) and the eastern end (271)).

Metrics	Ecoregions
NHI (Habitat Index)	43 44 42 25 27 271 47
Incision/Width Ratio	47 27 271 43 25 44 42
Percent Rowcrop	47 271 27 25 44 43 42
Percent Barren Banks	271 42 47 44 27 43 25
Percent Silt Substrate	271 47 25 27 44 43 42

Table 16. Minimum, 25th percentile, median, 75th percentile, maximum, and number of samples for all sampling locations and by ecoregion for parameters measured in the field during the Nebraska Stream Biological Monitoring Program, 2004-2008.

Field Parameter	Minimum	25%tile	Median	75th%tile	Maximum	Number Sampled
All Ecoregions						
Conductivity, µmho/cm	126	357	519	708	1756	203
Dissolved oxygen, mg/l	1.66	4.65	8.65	10.19	13.37	203
pH	7.12	7.85	8.05	8.25	8.72	203
Stream discharge, cfs	0.04	1.22	5.27	35.13	855	203
Turbidity, NTU	0.3	12.8	26.3	59	724	203
Water Temperature, °C	4.01	19.3	22.12	25.32	34.3	203
Ecoregion 25						
Conductivity, µmho/cm	164	403	587	855	1229	29
Dissolved oxygen, mg/l	5.66	7.8	8.5	9.3	13.41	29
pH	7.41	8.01	8.08	8.16	8.58	29
Stream discharge, cfs	0.15	1.25	10.36	245	315	29
Turbidity, NTU	0.3	2.15	18.4	75.4	247	20
Water Temperature, °C	10.21	17.9	19.76	21.92	30.04	29
Ecoregion 42						
Conductivity, µmho/cm	193	224	235	365	872	7
Dissolved oxygen, mg/l	7.3	7.95	9.52	10.14	10.18	7
pH	7.93	7.96	8.12	8.25	8.43	7
Stream discharge, cfs	1.17	2.6	8.09	46	75	7
Turbidity, NTU	0.7	3.2	8.1	28.2	55.2	7
Water Temperature, °C	14.84	17.42	22.17	27.15	31.18	7
Ecoregion 43						
Conductivity, µmho/cm	162	183	272	364	553	7
Dissolved oxygen, mg/l	7.92	7.98	8.11	8.7	10.19	7
pH	8.03	8.11	8.33	8.44	8.66	7
Stream discharge, cfs	1.6	2.2	3.37	99.05	102.59	7
Turbidity, NTU	10.5	12.9	20.9	32.2	90.7	7
Water Temperature, °C	21.43	22.56	25.08	26.49	27.48	7
(More)						

Table 16. continued.

Field Parameter	Minimum	25%tile	Median	75th%tile	Maximum	Number Sampled
Ecoregion 44						
Conductivity, µmho/cm	126	149	179	226	362	19
Dissolved oxygen, mg/l	6.84	7.68	7.97	9.67	13.86	19
pH	7.3	7.79	8	8.16	8.72	19
Stream discharge, cfs	0.35	6.28	22.06	103	371.38	19
Turbidity, NTU	1	5.8	17.6	30.2	50.6	19
Water Temperature, °C	13.95	19.66	21.57	25.61	30.07	19
Ecoregion 27						
Conductivity, µmho/cm	162	357	552	746	916	42
Dissolved oxygen, mg/l	3.3	6.62	8.19	8.93	12.16	42
pH	7.76	7.98	8.13	8.26	8.79	42
Stream discharge, cfs	0.1	1.04	6.05	53.06	855	42
Turbidity, NTU	3	15.95	25.05	61.85	724	40
Water Temperature, °C	11.96	21.04	24	27.25	34.3	42
Ecoregion 47						
Conductivity, µmho/cm	251	485	604	691	1550	75
Dissolved oxygen, mg/l	1.66	7.62	9.47	11.64	16.37	75
pH	7.20	7.74	7.97	8.21	9.01	75
Stream discharge, cfs	0.04	0.77	2.81	8.01	255	75
Turbidity, NTU	7.5	15.5	32.25	70.5	230	70
Water Temperature, °C	14.72	20.14	22.12	25.36	31.81	75
Ecoregion 271						
Conductivity, µmho/cm	223	378	451	615	1756	24
Dissolved oxygen, mg/l	5.11	7.33	10.64	11.91	16.2	24
pH	7.12	7.7	7.97	8.15	8.82	24
Stream discharge, cfs	0.39	1.62	5.83	23.67	117.91	24
Turbidity, NTU	3.1	13.3	29.95	50.6	367.4	24
Water Temperature, °C	4.01	10.03	19.68	24.51	32.68	24

Table 17. Significant differences using Duncan's Multiple Range Analysis of Variance Test ($p<0.05$) between field chemistries and ecoregions for the Nebaraska Biological Monitoring Program, 2004-2008. (Continuous underling indicate a similarity between ecoregions. Ecoregion 27 is divided into the western end (27) and the eastern end (271)).

Field Chemistries	Ecoregion
Conductivity	25 47 271 27 42 43 44
Dissolved oxygen	271 47 42 44 25 43 27
Temperature	43 27 47 42 44 25 271
pH	43 27 25 42 44 47 271 (no significant difference)
Stream discharge	25 27 44 43 42 47 271 (no significant difference)
Turbidity	27 271 47 25 43 44 42 (no significant difference)

Table 18. Table of 2004-2008 Nebraska Stream Biological Monitoring Program stream ratings using IBI fish scores and ICI macroinvertebrate scores.

Storet	STR_SEG	STRMNAME	Habscore5	IBI8	BugSc	Habuse	IBIuse	ICIuse	Final rating
009560	LP1.11600	Pawnee Creek	46	72.76	20	Excellent	Excellent	Good	Good
009810	NE2.12110	Lores Branch	42	59.82	4	Good	Excellent	Poor	Poor
010087	LP1.11500	Pawnee Creek	42	50.76	22	Excellent	Good	Excellent	Good
010112	NE3.10800	Indian Creek	44	67.30	16	Excellent	Excellent	Good	Good
010150	MP2.20000	Platte River	44	54.70	10	Good	Good	Fair	Good
010165	SP1.20000	South Platte River	50	71.55	8	Excellent	Excellent	Fair	Excellent
BB1126	BB1.10610	Wolf Creek	26	40.96	18	Poor	Fair	Good	Fair
BB1127	BB1.12000	Soap Creek	34	66.83	16	Good	Excellent	Good	Good
BB1128	BB1.11410	Pierce Creek	36	72.64	10	Good	Excellent	Fair	Fair
BB1129	BB1.11900	Cub Creek	28	43.69	14	Poor	Good	Good	Good
BB2130	BB2.20000	Turkey Creek	36	61.46	10	Good	Excellent	Fair	Fair
BB2131	BB2.30000	Turkey Creek	30	53.12	12	Fair	Good	Fair	Fair
BB2132	BB2.10110	South Fork Swan Creek	24	43.79	14	Poor	Good	Good	Good
BB2133	BB2.10000	Turkey Creek	28	38.64	18	Poor	Poor	Good	Poor
BB3134	BB3.10400	Beaver Creek	36	45.29	8	Good	Good	Poor	Poor
BB3135	BB3.30000	West Fork Big Blue River	40	54.37	20	Excellent	Good	Good	Good
BB3136	BB3.20000	West Fork Big Blue River	32	41.41	4	Fair	Fair	Poor	Poor
BB4137	BB4.20700	Plum Creek	32	41.76	12	Fair	Fair	Fair	Fair
BB4138	BB4.40000	Big Blue River	30	41.54	10	Fair	Fair	Fair	Fair
BB4139	BB4.20800	Lincoln Creek	26	38.22	10	Poor	Poor	Fair	Poor
BB4140	BB4.20900	Lincoln Creek	32	44.09	8	Fair	Good	Poor	Poor
EL1113	EL1.10900	Maple Creek	28	29.28	12	Poor	Poor	Fair	Poor
EL1115	EL1.20100	Pebble Creek	32	32.53	10	Fair	Poor	Fair	Poor
EL1116	EL1.10700	Bell Creek	30	42.46	16	Fair	Fair	Good	Fair
EL1117	EL1.10940	W. Fork Maple Creek	38	22.78	16	Excellent	Poor	Good	Poor
EL1118	EL1.10920	E. Fork Maple Creek	38	45.63	14	Excellent	Good	Good	Good
EL1119	EL1.20000	Elkhorn River	38	56.75	10	Excellent	Good	Fair	Fair
EL1120	EL1.20000	Elkhorn River	38	51.13	10	Excellent	Good	Fair	Fair
EL1121	EL1.21300	Humbug Creek	38	67.44	20	Excellent	Excellent	Good	Good
EL1122	EL1.20000	Elkhorn River	38	47.16	8	Excellent	Good	Poor	Poor
EL1123	EL1.22100	Union Creek	38	33.17	10	Excellent	Poor	Fair	Poor
EL2124	EL2.40200	Middle Logan Creek	34	36.88	14	Good	Poor	Good	Poor
EL3125	EL3.20400	Dry Creek	36	77.65	16	Good	Excellent	Good	Good
EL4126	EL4.10500	Battle Creek	44	46.41	10	Excellent	Good	Fair	Fair

Table 18. continued.

Storet	STR_SEG	STRMNAME	Habscore5	ibi8	BugSc	Habuse	IBIuse	ICIuse	Final rating
EL4127	EL4.10000	Elkhorn River	32	56.68	10	Fair	Good	Fair	Fair
EL4128	EL4.10000	Elkhorn River	36	59.12	16	Good	Good	Good	Good
EL4129	EL4.20300	Clearwater Creek	40	73.82	18	Fair	Good	Poor	Poor *1
EL4130	EL4.30000	Elkhorn River	38	72.75	6	Fair	Good	Poor	Poor*1
EL4131	EL4.40000	Elkhorn River	38	63.04	8	Good	Good	Poor	Poor*1
EL4132	EL4.30500	Holt Creek	28	70.29	6	Poor	Excellent	Poor	Poor
EL4133	EL4.30400	Holt Creek	28	63.59	14	Poor	Good	Poor	Poor
LB1117	LB1.10410	Dry Branch	38	74.37	10	Excellent	Excellent	Fair	Fair
LB1131	LB1.10000	Little Blue River	28	47.43	18	Poor	Good	Good	Good
LB2118	LB2.30000	Little Blue River	38	69.13	12	Excellent	Excellent	Fair	Fair
LB2119	LB2.10600	Spring Creek	34	22.75	14	Good	Poor	Good	Poor
LB2120	LB2.20500	Liberty Creek	36	67.64	12	Good	Excellent	Fair	Fair
LB2121	LB2.10500	Spring Creek	28	62.77	16	Poor	Excellent	Good	Good
LB2122	LB2.30000	Little Blue River	34	62.77	18	Good	Excellent	Good	Good
LB2123	LB2.20000	Little Blue River	38	58.45	12	Excellent	Good	Fair	Fair
LB2124	LB2.20200	Elk Creek	28	58.65	16	Poor	Good	Good	Good
LB2125	LB2.10100	Big Sandy Creek	28	59.28	18	Poor	Good	Good	Good
LB2126	LB2.30000	Litle Blue River	44	65.54	20	Excellent	Excellent	Good	Good
LB2127	LB2.20000	Little Blue River	34	44.77	16	Good	Good	Good	Good
LB2129	LB2.10500	Spring Creek	36	60.40	4	Good	Excellent	Poor	Poor
LO1181	LO1.10700+E119	Beaver Creek	42	58.53	10	Good	Good	Poor	Poor
LO1182	LO1.30500	Cedar River	48	76.03	16	Excellent	Excellent	Good	Good
LO1183	LO1.10800	Cottonwood Creek	34	43.86	12	Fair	Good	Fair	Fair
LO1184	LO1.10800	Beaver Creek	44	75.65	18	Good	Excellent	Good	Good
LO2185	LO2.10400	Mira Creek	26	65.29	10	Poor	Excellent	Fair	Fair
LO2186	LO2.10000	North Loup River	40	59.19	14	Good	Good	Good	Good
LO2187	LO2.40000	North Loup River	44	61.86	10	Good	Good	Poor	Poor*2
LO2192	LO2.10000	North Loup River	30	87.80	14	Poor	Excellent	Good	Good
LO2200	LO2.20200	Goose Creek	44	81.24	14	Good	Excellent	Poor	Poor*2
LO3088	LO3.50200	Dismal River	46	59.50	20	Good	Good	Good	Good
LO3165	LO3.50330	North Fork Dismal River (A)	48	48.07	16	Excellent	Fair	Good	Fair
LO3189	LO3.30000	Middle Loup River	24	51.75	12	Poor	Good	Fair	Fair
LO3190	LO3.60000	Middle Loup River	44	72.59	20	Good	Excellent	Good	Good
LO3191	LO3.40400	Victoria Creek	30	73.48	20	Poor	Excellent	Excellent	Excellent

Table 18. continued.

Storet	STR_SEG	STRMNAME	Habscore5	ibi8	BugSc	Habuse	IBIuse	ICIuse	Final rating
LO3193	LO3.10400	Oak Creek	40	70.78	4	Good	Excellent	Poor	Poor
LO4194	LO4.30000	South Loup River	46	70.38	18	Good	Excellent	Good	Good
LO4195	LO4.10000	South Loup River	34	47.38	8	Fair	Good	Fair	Fair
LO4196	LO4.10200	Mud Creek	36	24.65	10	Fair	Poor	Fair	Poor
LO4197	LO4.20000	Sourth Loup River	46	53.13	14	Good	Good	Good	Good
LP1170	LP1.10110	Bachelor Br To Eight Mile Cr.	42	42.23	20	Excellent	Fair	Good	Fair
LP1171	LP1.21100	Lost Creek	34	70.41	18	Fair	Excellent	Good	Good
LP1172	LP1.20800	Shell Creek	28	20.11	4	Poor	Poor	Poor	Poor
LP1173	LP1.20800	Shell Creek	30	47.32	16	Fair	Good	Good	Good
LP2174	LP2.20000	Salt Creek	28	39.18	14	Poor	Poor	Good	Poor
LP2175	LP2.10100	Wahoo Creek	22	46.96	16	Poor	Good	Good	Good
LP2176	LP2.20612	Bates Branch	34	41.91	12	Good	Fair	Fair	Fair
LP2177	LP2.21000	Middle Creek	36	38.41	10	Good	Poor	Fair	Poor
LP2178	LP2.20710	Middle Oak Creek	32	53.34	14	Fair	Good	Good	Good
LP2179	LP2.10210	Cottonwood Creek	32	33.39	16	Fair	Poor	Good	Poor
LP2180	LP2.10140	Silver Creek	30	40.14	12	Fair	Fair	Fair	Fair
LP2181	LP2.40300	Olive Branch	34	44.71	8	Good	Good	Poor	Poor
LP2182	LP2.11100	Rock Creek	30	49.79	14	Fair	Good	Good	Fair
LP2183	LP2.10110	Clear Creek	24	66.69	20	Poor	Excellent	Good	Good
LP2184	LP2.10170	Sand Creek	36	50.01	20	Good	Good	Good	Good
LP2185	LP2.10800	Dee Creek	36	51.86	18	Good	Good	Good	Good
LP2186	LP2.10400	Wahoo Creek	34	41.22	10	Good	Fair	Fair	Fair
LP2187	LP2.11010	Rock Creek	28	62.82	14	Poor	Excellent	Good	Good
MP1003	MP1.10100	Clear Creek	40	46.12	14	Good	Good	Good	Good
MP1063	MP1.20100	Prairie Creek	24	61.51	14	Poor	Good	Good	Good
MP2064	MP2.20000	Platte River	42	63.43	12	Good	Good	Fair	Good
MP2065	MP2.20300	Spring Creek	32	16.99	14	Fair	Poor	Good	Poor*3
MP2066	MP2.40000	Platte River	42	61.54	12	Good	Good	Fair	Good
MP2067	MP2.40000	Platte River	40	54.60	8	Excellent	Good	Fair	Good
MT1148	MT1.10240	S. Branch Papillion Creek	36	31.85	14	Good	Poor	Good	Poor
MT1150	MT1.10120	Big Papillion Creek	34	47.52	16	Good	Good	Good	Good
MT1151	MT1.10800	Long Creek	36	19.17	12	Good	Poor	Fair	Poor
MT1152	MT1.10700	Mill Creek	40	62.78	14	Excellent	Excellent	Good	Good
MT1153	MT1.11510	Silver Creek	34	37.88	18	Good	Poor	Good	Poor

Table 18. continued.

Storet	STR_SEG	STRMNAME	Habscore5	ibi8	BugSc	Habuse	IBluse	ICluse	Final rating
MT1154	MT1.12171	Cow Creek	28	38.72	14	Poor	Poor	Good	Poor
MT1156	MT1.12150	North Omaha Creek	34	32.50	14	Good	Poor	Good	Poor
MT1157	MT1.12100	Omaha Creek	32	52.71	16	Fair	Good	Good	Good
MT2158	MT2.10300	Elk Creek	28	35.60	8	Poor	Poor	Poor	Poor
MT2159	MT2.10300	Elk Creek	30	39.13	16	Fair	Poor	Good	Poor
MT2160	MT2.10200	Elk Creek	36	58.85	14	Good	Good	Good	Good
MT2161	MT2.11000	Lime Creek	40	73.62	4	Excellent	Excellent	Poor	Poor*3
MT2162	MT2.11310	West Bow Creek	32	59.37	14	Fair	Good	Good	Fair
MT2163	MT2.11521	Unnamed Trib. Norwegian Bow Creek	32	73.38	12	Fair	Excellent	Fair	Fair
MT2164	MT2.11520	Norwegian Bow Creek	38	60.58	18	Excellent	Excellent	Good	Good
MT2165	MT2.11320	West Bow Creek	34	48.20	18	Good	Good	Good	Good
MT2166	MT2.12510	Little Bazile Creek	34	56.57	16	Good	Good	Good	Good
MT2167	MT2.12620	Unnamed Trib. Bazile Creek	30	91.89	14	Fair	Excellent	Good	Good
MT2168	MT2.12400	Bazile Creek	46	60.17	10	Excellent	Excellent	Fair	Fair
NE1196	NE1.12831	Big Slough	40	42.16	10	Excellent	Fair	Fair	Fair
NE1197	NE1.10200	Winnebago Creek	36	76.18	8	Good	Excellent	Poor	Poor
NE2198	NE2.10000	Big Nemaha River	30	31.93	10	Fair	Poor	Fair	Poor
NE2199	NE2.10751	Whiskey Run	34	77.51	24	Good	Excellent	Excellent	Excellent
NE2200	NE2.12330	Long Branch Creek	26	29.22	18	Poor	Poor	Good	Poor
NE2201	NE2.12135.12	Unnamed Trib. Balls Branch	32	75.14	14	Fair	Excellent	Good	Good
NE2202	NE2.12000	Fourmile Creek	34	53.50	18	Good	Good	Good	Good
NE2203	NE2.12600	Mid Br Big Nemaha River	24	40.17	18	Poor	Fair	Good	Fair
NE2204	NE2.10600	Muddy Creek	28	32.24	20	Poor	Poor	Good	Poor
NE2205	NE2.11900	S. Fork Big Nemaha River	30	40.60	20	Fair	Fair	Good	Fair
NE2206	NE2.12500	N. Fork Big Nemaha River	22	36.25	14	Poor	Poor	Good	Poor
NE2207	NE2.12610	Mid. Br. Big Nemaha River	24	29.38	14	Poor	Poor	Good	Poor
NE2208	NE2.10760	Little Muddy Creek	32	60.60	14	Fair	Excellent	Good	Good
NE2209	NE2.10810	Hoosier Creek	46	51.77	18	Excellent	Good	Good	Good
NE3210	NE3.31200	Hooper Creek	34	51.17	14	Good	Good	Good	Good
NE3211	NE3.10000	Little Nemaha River	24	41.80	22	Poor	Fair	Excellent	Fair
NE3212	NE3.12700	Sand Creek	28	40.21	18	Poor	Fair	Good	Fair
NE3213	NE3.10000	Little Nemaha River	30	52.22	16	Fair	Good	Good	Good
NI1499	NI1.10230	Ponca Creek	36	65.40	20	Fair	Good	Excellent	Good

Table 18. continued.

Storet	STR_SEG	STRMNAME	Habscore5	ibi8	BugSc	Habuse	IBluse	ICluse	Final rating
NI2078	NI2.11780	Middle Branch Eagle Creek	52	72.79	12	Excellent	Good	Poor	Poor*1
NI2500	NI2.10100	Verdigre Creek	48	60.49	16	Excellent	Good	Poor	Poor
NI2501	NI2.11420	Spring Creek	52	54.75	16	Excellent	Good	Poor	Poor*1
NI3180	NI3.20700	Muleshoe Creek	50	63.36	22	Excellent	Good	Excellent	Good
NI3270	NI3.22510	Boardman Creek	46	64.81	10	Good	Good	Poor	Poor*2
NI3503	NI3.13120	South Fork Plum Creek	48	69.08	16	Excellent	Excellent	Good	Good
NI3504	NI3.22300	Gordon Creek	44	65.80	14	Good	Excellent	Poor	Poor*2
NI3505	NI3.10220	Burton Creek	34	87.10	10	Fair	Excellent	Fair	Fair
NI3506	NI3.12310	Willow Creek	36	73.26	14	Good	Excellent	Good	Good
NI3507	NI3.13000	Plum Creek	42	70.73	14	Good	Excellent	Good	Good
NI3509	NI3.21900	Minnechaduza Creek	46	85.96	16	Good	Excellent	Good	Good
NI3510	NI3.21900	Minnechaduza Creek (A)	54	84.74	14	Excellent	Excellent	Good	Good
NI3511	NI3.12220	Bone Creek	36	74.41	20	Fair	Excellent	Good	Good
NI3520	NI3.20500	Fairfield Creek	48	56.85	16	Excellent	Good	Good	Good
NI4278	NI4.10110	Dry Creek	38	53.30	8	Good	Good	Poor	Poor*2
NI4514	NI4.10000	Niobrara River - Near Merriman	56	58.11	12	Excellent	Good	Poor	Poor
NI4515	NI4.10000	Niobrara River Near Hay Springs	38	89.91	20	Excellent	Excellent	Excellent	Excellent
NI4516	NI4.50000	Niobrara River Near Harrison	44	69.30	8	Excellent	Excellent	Fair	Fair
NI4517	NI4.10600	Rush Creek	36	69.47	14	Fair	Excellent	Poor	Poor*3
NP1114	NP1.10000	North Platte River	42	58.67	18	Good	Good	Good	Good
NP1115	NP1.20000	North Platte River	36	66.32	18	Fair	Excellent	Good	Excellent
NP1116	NP1.20500	Birdwood Creek	44	55.02	20	Good	Good	Good	Good
NP1117	NP1.30000	North Platte River	40	61.81	12	Good	Good	Fair	Good
NP1118	NP1.30900	Whitetail Creek	34	83.96	16	Fair	Excellent	Good	Excellent
010158	NP2.11200	Blue Creek	44	63.08	14	Good	Good	Good	Good
NP2119	NP2.10800	Blue Creek	44	82.63	20	Good	Excellent	Good	Excellent
NP2120	NP2.11000	Blue Creek	44	65.77	12	Excellent	Excellent	Fair	Excellent
NP2121	NP2.10000	North Platte River	38	77.27	10	Excellent	Excellent	Fair	Excellent
NP2122	NP2.10000	North Platte River	38	67.77	14	Excellent	Excellent	Good	Excellent
NP3066	NP3.50000	North Platte River	42	69.31	18	Excellent	Excellent	Good	Excellent
NP3098	NP3.20000	North Platte River	48	71.64	12	Excellent	Excellent	Fair	`
NP3123	NP3.10000	North Platte River	34	65.60	14	Fair	Excellent	Good	Excellent
NP3124	NP3.11000	Red Willow Creek	34	62.04	22	Fair	Good	Excellent	Good
NP3125	NP3.10910	Wildhorse Drain	44	59.43	18	Excellent	Good	Good	Good

Table 18. continued.

Storet	STR_SEG	STRMNAME	Habscore5	ibi8	BugSc	Habuse	IBluse	ICluse	Final rating
NP3126	NP3.10000	North Platte River	42	63.55	20	Excellent	Good	Excellent	Good
NP3127	NP3.10000	North Platte River	46	76.52	22	Excellent	Excellent	Excellent	Excellent
NP3128	NP3.12500	North Platte River	28	56.71	10	Poor	Good	Fair	Good
NP3130	NP3.30000	Gering Drain	44	81.48	24	Excellent	Excellent	Excellent	Excellent
NP3131	NP3.30400	Sheep Creek	40	40.94	8	Excellent	Fair	Fair	Fair
RE1211	RE1.40000	Republican River	40	71.43	20	Good	Excellent	Excellent	Excellent
RE1212	RE1.10000	Republican River	40	64.46	12	Good	Excellent	Fair	Fair
RE2213	RE2.10500	Flag Creek	28	67.64	8	Poor	Excellent	Fair	Fair
RE2214	RE2.10300	Prairie Dog Creek	32	40.69	10	Fair	Fair	Fair	Fair
RE2215	RE1.11400	Muddy Creek	28	56.39	10	Poor	Good	Fair	Fair
RE2216	RE2.10600	Sappa Creek	26	47.65	18	Poor	Good	Good	Good
RE2217	RE2.10610	Beaver Creek	34	42.98	8	Fair	Fair	Fair	Fair
RE2227	RE2.11600	Deer Creek	34	41.37	12	Fair	Fair	Fair	Fair
RE2227	RE2.11600	Deer Creek	34	41.37	16	Fair	Fair	Good	Fair
RE3218	RE3.20200	Frenchman Creek	32	74.88	18	Fair	Excellent	Good	Good
RE3219	RE3.50000	Republican River	28	77.79	8	Poor	Excellent	Fair	Fair
RE3220	RE3.10600	Red Willow Creek	40	55.46	8	Good	Good	Fair	Fair
RE3221	RE3.20400	Frenchman Creek	32	76.34	22	Fair	Excellent	Excellent	Excellent
RE3222	RE3.10400	Medicine Creek	40	55.79	20	Good	Good	Excellent	Good
RE3223	RE3.11500	Muddy Creek	36	61.03	12	Fair	Good	Fair	Fair
RE3224	RE3.10100	Medicine Creek	34	64.92	6	Fair	Excellent	Poor	Poor*3
RE3225	RE3.20000	Republican River	44	68.09	14	Good	Excellent	Good	Good
RE3226	RE3.20220	Stinking Water Creek	36	78.37	20	Good	Excellent	Excellent	Excellent
009740	SP2.40000	Lodgepole Creek	46	39.61	12	Good	Fair	Good	Fair
SP2043	SP2.10000	Lodgepole Creek	36	20.32	16	Good	Poor	Good	Poor*3
SP2044	SP2.10000	Lodgepole Creek	40	29.50	10	Excellent	Poor	Fair	Poor*3
SP2045	SP2.20000	Lodgepole Creek	42	84.76	16	Excellent	Excellent	Good	Excellent
SP2046	SP2.20000	Lodgepole Creek	44	54.73	4	Excellent	Good	Poor	Poor*3
WH1071	WH1.10900	Beaver Creek	36	55.54	14	Good	Good	Good	Good
WH1074	WH1.11120	Big Bordeaux Creek	48	72.26	18	Excellent	Excellent	Good	Good
WH1075	WH1.10420	Larabee Creek	42	75.94	14	Excellent	Excellent	Good	Good
WH1076	WH1.10000	White River, North Of Chadron	48	30.90	20	Excellent	Poor	Excellent	Poo*3r
WH1077	WH1.20000	White River - Crawford City Park	46	52.49	22	Excellent	Good	Excellent	Good
WH1078	WH1.40000	White River, South Of Ft Rob Sp	36	73.68	20	Good	Excellent	Excellent	Excellent

Table 18. continued.

Storet	STR_SEG	STRMNAME	Habscore5	ibi8	BugSc	Habuse	IBIuse	ICIuse	Final rating
WH1078	WH1.40000	White River, South Of Ft Rob Sp	36	73.68	16	Good	Excellent	Good	Good
WH1080	WH1.11820	West Ash Creek	38	46.38	16	Excellent	Good	Good	Good

*Station was not included on 303d listing for poor ratings because of the following:

1 Extreme flow events
2 Stream is a uique system
3. Low flow