METRIC	LABEL
ALIENNIND	No. of non-native (alien) individuals
ALIENNTAX	No. of non-native (alien) taxa
ALIENPIND	% alien individuals
ALIENPTAX	% alien taxa
ANOMNIND	No. of individuals with anomalies (DELT anomalies)
ANOMPIND	% individuals with anomalies (% DELT anomalies)
BENTINVNIND	No. of benthic invertivore individuals
BENTINVNTAX	No. of benthic invertivore taxa
BENTINVPIND	% benthic invertivore individuals
BENTINVPTAX	% benthic invertivore taxa
CARNNIND	No. of carnivore individuals
CARNNTAX	No. of carnivore taxa
CARNPIND	% carnivore individuals
CARNPTAX	% carnivore taxa
CATONIND	No. of Catostomid individuals
CATONTAX	No. Catostomid taxa
CATOPIND	% Catostomid individuals
CATOPTAX	% Catostomid taxa
CENTNIND	No. of Centrarchidae individuals (minus Micropterus)
CENTNTAX	No. of Centrarchidae taxa (minus Micropterus)
CENTPIND	% Centrarchidae individuals (minus Micropterus)
CENTPTAX	% Centrarchidae taxa (minus Micropterus)
COLDNIND	No. coldwater individuals
COLDNTAX	No. coldwater taxa
COLDPIND	% coldwater individuals
COLDPTAX	% coldwater taxa
CYPRNIND	No. of Cyprinidae individuals
CYPRNTAX	No. of Cyprinidae taxa
CYPRPIND	% Cyprinidae individuals
CYPRPTAX	% Cyprinidae taxa
FLAG	Flag for sampled sites with no fish
HERBNIND	No. of herbivore individuals
HERBNTAX	No. of herbivore taxa
HERBPIND	% herbivore individuals
HERBPTAX	% herbivore taxa
ICTANIND	No. of Ictalurid individuals
ICTANTAX	No. of Ictalurid taxa
ICTAPIND	% Ictalurid individuals
ICTAPTAX	% Ictalurid taxa
INTLINVNIND	No. of intolerant invertivore individuals
INTLINVNTAX	No. of intolerant invertivore taxa
INTLINVPIND	% intolerant invertivore individuals
INTLINVPTAX	% intolerant invertivore taxa
INTLLOTNIND	No. of intolerant lotic individuals
INTLLOTNTAX	No. of intolerant lotic taxa

INTLLOTPIND	% intolerant lotic individuals
INTLLOTPTAX	% intolerant lotic taxa
INTLMIGRNIND	No. of intolerant migratory individuals
INTLMIGRNTAX	No. of intolerant migratory taxa
INTLMIGRPIND	% intolerant migratory individuals
INTLMIGRPTAX	% intolerant migratory taxa
INTLNIND	No. of intolerant individuals based on TOLERANCE_NRSA
INTLNTAX	No. distinct intolerant taxa based on TOLERANCE_NRSA
INTLPIND	% Intolerant individuals based on TOLERANCE_NRSA
INTLPTAX	% Intolerant taxa based on TOLERANCE_NRSA
INTLRHEONIND	No. of intolerant rheophilic individuals
INTLRHEONTAX	No. of intolerant rheophilic taxa
INTLRHEOPIND	% intolerant rheophilic individuals
INTLRHEOPTAX	% intolerant rheophilic taxa
INVNIND	No. of invertivore individuals
INVNTAX	No. of invertivore taxa
INVPIND	% invertivore individuals
INVPTAX	% invertivore taxa
LITHNIND	No. of lithophilic individuals
LITHNTAX	No. of lithophilic taxa
LITHPIND	% lithophilic individuals
LITHPTAX	% lithophilic taxa
LOTNIND	No. of lotic individuals
LOTNTAX	No. of lotic taxa
LOTPIND	% lotic individuals
LOTPTAX	% lotic taxa
MIGRNIND	No. of migratory individuals
MIGRNTAX	No. of migratory taxa
MIGRPIND	% migratory individuals
MIGRPTAX	% migratory taxa
MTOLNIND	No. intermediate tolerance individuals based on TOLERANCE_NRSA
MTOLNTAX	No. distinct intermediate tolerant taxa based on TOLERANCE_NRSA
MTOLPIND	% Intermediate tolerant individuals based on TOLERANCE_NRSA
MTOLPTAX	% intermediate tolerant taxa based on TOLERANCE_NRSA
NAT_BENTINVNIND	No. of native benthic invertivore individuals
NAT_BENTINVNTAX	No. of native benthic invertivore taxa
NAT_BENTINVPIND	% native individuals as benthic invertivore
NAT_BENTINVPTAX	% native taxa as benthic invertivore
NAT_CARNNIND	No. of native carnivore individuals
NAT_CARNNTAX	No. of native carnivore taxa
NAT_CARNPIND	% native individuals as carnivore
NAT_CARNPTAX	% native taxa as carnivore
NAT_CATONIND	No. native Catostomid individuals
NAT_CATONTAX	No. native Catostomid taxa
NAT_CATOPIND	% native individuals as Catostomid
NAT_CATOPTAX	% native taxa as Catostomid
NAT_CENTNIND	No. of native Centrarchidae (minus Micropterus) individuals

NAT_CENTNTAX	No. of native Centrarchidae (minus Micropterus) taxa
NAT_CENTPIND	% native individuals as Centrarchidae (minus Micropterus)
NAT_CENTPTAX	% native taxa as Centrarchidae (minus Micropterus)
NAT_COLDNIND	No. of native coldwater individuals
NAT_COLDNTAX	No. of native coldwater taxa
NAT_COLDPIND	% native individuals as coldwater
NAT_COLDPTAX	% native taxa as coldwater
NAT_CYPRNIND	No. of native Cyprinidae individuals
NAT_CYPRNTAX	No. of native Cyprinidae taxa
NAT_CYPRPIND	% native individuals as Cyprinidae
NAT_CYPRPTAX	% native taxa as Cyprinidae
NAT_HERBNIND	No. of native herbivores individuals
NAT_HERBNTAX	No. of native herbivores taxa
NAT_HERBPIND	% native individuals as native herbivores
NAT_HERBPTAX	% native taxa as native herbivores
NAT_ICTANIND	No. of native Ictaluridae individuals
NAT_ICTANTAX	No. of native Ictaluridae taxa
NAT_ICTAPIND	% native individuals as Ictaluridae
NAT_ICTAPTAX	% native taxa as Ictaluridae
NAT_INTLINVNIND	No. of native intolerant invertivore individuals
NAT_INTLINVNTAX	No. of native intolerant invertivore taxa
NAT_INTLINVPIND	% native individuals as intolerant invertivore
NAT_INTLINVPTAX	% native taxa as intolerant invertivore
NAT_INTLLOTNIND	No. of native intolerant lotic individuals
NAT_INTLLOTNTAX	No. of native intolerant lotic taxa
NAT_INTLLOTPIND	% native individuals as intolerant lotic
NAT_INTLLOTPTAX	% native taxa as intolerant lotic
NAT_INTLMIGRNIND	No. of native intolerant migratory individuals
NAT_INTLMIGRNTAX	No. of native intolerant migratory taxa
NAT_INTLMIGRPIND	% native individuals as intolerant migratory
NAT_INTLMIGRPTAX	% native taxa as intolerant migratory
NAT_INTLNIND	No. native intolerant individuals based on TOLERANCE_NRSA
NAT_INTLNTAX	No. distinct intolerant native taxa based on TOLERANCE_NRSA
NAT_INTLPIND	% Intolerant native individuals based on TOLERANCE_NRSA
NAT_INTLPTAX	% Intolerant native taxa based on TOLERANCE_NRSA
NAT_INTLRHEONIND	No. of native intolerant rheophilic individuals
NAT_INTLRHEONTAX	No. of native intolerant rheophilic taxa
NAT_INTLRHEOPIND	% native individuals as intolerant rheophilic
NAT_INTLRHEOPTAX	% native taxa as intolerant rheophilic
NAT_INVNIND	No. of native invertivores individuals
NAT_INVNTAX	No. of native invertivores taxa
NAT_INVPIND	% native individuals as invertivores
NAT_INVPTAX	% native taxa as invertivores
NAT_LITHNIND	No. of native simple lithophils individuals
NAT_LITHNTAX	No. of native simple lithophils taxa
NAT_LITHPIND	% native individuals as simple lithophils
NAT_LITHPTAX	% native taxa as simple lithophils

NAT_LOTNIND	No. of native lotic individuals
NAT_LOTNTAX	No. of native lotic taxa
NAT_LOTPIND	% native individuals as lotic
NAT_LOTPTAX	% native taxa as lotic
NAT_MIGRNIND	No. native migratory individuals
NAT_MIGRNTAX	No. native migratory taxa
NAT_MIGRPIND	% native individuals as migratory
NAT_MIGRPTAX	% native taxa as migratory
NAT_MTOLNIND	No. native intermediate tolerant individuals based on TOLERANCE_NRSA
NAT_MTOLNTAX	No. distinct intermediate tolerant native taxa based on TOLERANCE_NRSA
NAT_MTOLPIND	% Intermediate tolerant native individuals based on TOLERANCE_NRSA
NAT_MTOLPTAX	% intermediate tolerant native taxa based on TOLERANCE_NRSA
NAT_NTOLBENTNIND	No. native non-tolerant benthic individuals based on TOLERANCE_NRSA
NAT_NTOLBENTNTAX	No. native non-tolerant benthic taxa based on TOLERANCE_NRSA
NAT_NTOLBENTPIND	% native non-tolerant benthic individuals based on TOLERANCE_NRSA
NAT_NTOLBENTPTAX	% native non-tolerant benthic taxa based on TOLERANCE_NRSA
NAT_NTOLCARNNIND	No. native non-tolerant carnivore individuals based on TOLERANCE_NRSA
NAT_NTOLCARNNTAX	No. native non-tolerant carnivore taxa based on TOLERANCE_NRSA
NAT_NTOLCARNPIND	% native non-tolerant carnivore individuals based on TOLERANCE_NRSA
NAT_NTOLCARNPTAX	% native non-tolerant carnivore taxa based on TOLERANCE_NRSA
NAT_NTOLINVNIND	No. native non-tolerant invertivore individuals based on TOLERANCE_NRSA
NAT_NTOLINVNTAX	No. native non-tolerant invertivore taxa based on TOLERANCE_NRSA
NAT_NTOLINVPIND	% native non-tolerant invertivore individuals based on TOLERANCE_NRSA
NAT_NTOLINVPTAX	% native non-tolerant invertivore taxa based on TOLERANCE_NRSA
NAT_NTOLNIND	No. native non-tolerant individuals based on TOLERANCE_NRSA
NAT_NTOLNTAX	No. native non-tolerant taxa based on TOLERANCE_NRSA
NAT_NTOLPIND	% native non-tolerant individuals based on TOLERANCE_NRSA
NAT_NTOLPTAX	% native non-tolerant taxa based on TOLERANCE_NRSA
NAT_OMNININD	No. native omnivore individuals
NAT_OMNINTAX	No. native omnivore taxa
NAT_OMNIPIND	% native individuals as omnivore
NAT_OMNIPTAX	% native taxa as omnivore
NAT_PTAX	native % of total taxa
NAT_PIND	native % of total individuals
NAT_RBCATONIND	No. native round-bodied sucker individuals
NAT_RBCATONTAX	No. native round-bodied sucker taxa
NAT_RBCATOPIND	% native individuals as round-bodied sucker
NAT_RBCATOPTAX	% native taxa as round-bodied sucker
NAT_RHEONIND	No. native rheophilic individuals
NAT_RHEONTAX	No. native rheophilic taxa
NAT_RHEOPIND	% native individuals as rheophilic
NAT_RHEOPTAX	% native taxa as rheophilic
NAT_SALMNIND	No. native salmonid individuals
NAT_SALMNTAX	No. native salmonid taxa
NAT_SALMPIND	% native individuals as salmonid
NAT_SALMPTAX	% native taxa as salmonid
NAT_TOLRNIND	No. native tolerant individuals based on TOLERANCE_NRSA

NAT_TOLRNTAX	No. distinct Tolerant native taxa based on TOLERANCE_NRSA
NAT_TOLRPIND	% Tolerant native individuals based on TOLERANCE_NRSA
NAT_TOLRPTAX	% Tolerant native taxa based on TOLERANCE_NRSA
NAT_TOTLNIND	Total native individuals
NAT_TOTLNTAX	Total native taxa
NAT_WTD_TV	Weighted average tolerance value among natives
NTOLBENTNIND	No. non-tolerant benthic individuals
NTOLBENTNTAX	No. non-tolerant benthic taxa
NTOLBENTPIND	% non-tolerant benthic individuals
NTOLBENTPTAX	% non-tolerant benthic taxa
NTOLCARNNIND	No. non-tolerant carnivore individuals
NTOLCARNNTAX	No. non-tolerant carnivore taxa
NTOLCARNPIND	% non-tolerant carnivore individuals
NTOLCARNPTAX	% non-tolerant carnivore taxa
NTOLINVNIND	No. non-tolerant invertivore individuals
NTOLINVNTAX	No. non-tolerant invertivore taxa
NTOLINVPIND	% non-tolerant invertivore individuals
NTOLINVPTAX	% non-tolerant invertivore taxa
NTOLNIND	no. non-tolerant (TOLERANCE_NRSA=(S)ensitive/(I)ntermediate) individuals
NTOLNTAX	no. non-tolerant (TOLERANCE_NRSA=(S)ensitive/(I)ntermediate) taxa
NTOLPIND	% non-tolerant (TOLERANCE_NRSA=(S)ensitive/(I)ntermediate) individuals
NTOLPTAX	% non-tolerant (TOLERANCE_NRSA=(S)ensitive/(I)ntermediate) taxa
OMNININD	No. of omnivore individuals
OMNINTAX	No. of omnivore taxa
OMNIPIND	% omnivore individuals
OMNIPTAX	% omnivore taxa
RBCATONIND	No. of round-bodied sucker individuals
RBCATONTAX	No. of round-bodied sucker taxa
RBCATOPIND	% round-bodied sucker individuals
RBCATOPTAX	% round-bodied sucker taxa
RHEONIND	No. of rheophilic individuals
RHEONTAX	No. of rheophilic taxa
RHEOPIND	% rheophilic individuals
RHEOPTAX	% rheophilic taxa
SALMNIND	No. of Salmonid individuals
SALMNTAX	No. of Salmonid taxa
SALMPIND	% Salmonid individuals
SALMPTAX	% Salmonid taxa
TOLRNIND	No. tolerant individuals based on TOLERANCE_NRSA
TOLRNTAX	No. distinct Tolerant taxa based on TOLERANCE_NRSA
TOLRPIND	% Tolerant individuals based on TOLERANCE_NRSA
TOLRPTAX	% Tolerant taxa based on TOLERANCE_NRSA
TOTLNIND	Total no. individuals
TOTLNTAX	Total no. distinct taxa
WTD_TV	Hilsenhoff Biotic Index (HBI), sum of TV_i*prop_i, where TV_i=tolerance value for species i and prop_i=proportion of taxon i in sample, based on all taxa in sample

PREFIX	LABEL
ALIEN	Alien (NON_NATIVE='Y')
ANOM	DELT Anomalies
BENTINV	Benthic Invertivore (HABITAT_GLEC=B and TROPHIC=I)
CARN	Carnivore (TROPHIC_GLEC=C)
CATO	Catostomidae
CENT	Centrarchidae (excluding Micropterus)
COLD	Coldwater (TEMP_GLEC=CD)
CYPR	Cyprinidae
HERB	Herbivore (TROPHIC_GLEC=H)
ICTA	Ictaluridae
INTL	Intolerant (TOLERANCE_NRSA=S)
INTLINV	Intolerant Invertivores (TOLERANCE_NRSA=S and TROPHIC_GLEC=I)
INTLLOT	Intolerant Lotic (TOLERANCE_NRSA=S and VEL_GLEC=(R or O))
INTLMIGR	Intolerant Migratory (TOLERANCE_NRSA=S and MIGR_GLEC=Y)
INTLRHEO	Intolerant Rheophilic (TOLERANCE_NRSA=S and VEL_GLEC=R)
INV	Invertivores (TROPHIC_GLEC=I)
LITH	Lithophilic (REPROD_GLEC=C)
LOT	Lotic (VEL_GLEC=(R or O)
MIGR	Migratory (MIGR_GLEC=Y)
MTOL	Intermediate Tolerance (TOLERANCE_NRSA=I)
NAT	Native (NON_NATIVE='N'), as a prefix to any metric, indicates metric is based only on native subset of data
NTOL	Non-tolerant (TOLERANCE_NRSA=(S)ensitive/(I)ntermediate)
NTOLBENT	Non-tolerant Benthic (TOLERANCE_NRSA=(S or I) and TROPHIC_GLEC=B)
NTOLCARN	Non-tolerant Carnivore (TOLERANCE_NRSA=(S or I) and TROPHIC_GLEC=C)
NTOLINV	Non-tolerant Invertivore (TOLERANCE_NRSA=(S or I) and TROPHIC_GLEC=I)
OMNI	Omnivore (TROPHIC_GLEC=O)
RBCATO	Round-bodied Suckers (Family Catostomidae in the genera Moxostoma, Hypentelium, Minytrema, Erimyzon, Catostomus, Cycleptus, Pantosteus, Thoburnia)
RHEO	Rheophilic (VEL_GLEC=R)
SALM	Salmonidae
TOLR	Tolerant (TOLERANCE_NRSA=T)
TOTL	Total number

SUFFIX	LABEL
NIND	Number of Individuals
PIND	Percentage of Individuals
NTAX	Number of Taxa
PTAX	Percentage of Taxa