

Variable Name	Label
ACHNNEWNIND	Abundance of Achnanthes (new genus)
ACHNNEWPIIND	Proportion of Individuals that are Achnanthes (new genus)
ACHNNEWPTAX	Proportion of All Species that are Achnanthes (new genus)
ACHNNEWRICRICH	Achnanthes (new genus) Species Richness
ACHNOLDNIND	Abundance of Acnanthes (old genus)
ACHNOLDPIIND	Proportion of Individuals that are Acnanthes (old genus)
ACHNOLDPTAX	Proportion of All Species that are Acnanthes (old genus)
ACHNOLDRICH	Acnanthes (old genus) Species Richness
ACNVNEWPIIND	Proportion of Individuals - Achnanthes/(Achnanthes + Navicula)
ACNVNEWPTAX	Proportion of Species - Achnanthes/(Achnanthes + Navicula) (ne
ACNVOLDPIIND	Proportion of Individuals - Achnanthes/(Achnanthes + Navicula)
ACNVOLDPTAX	Proportion of Species - Achnanthes/(Achnanthes + Navicula) (ol
AMPHNEWNIND	Abundance of Amphora (new genus)
AMPHNEWPIIND	Proportion of Individuals that are Amphora (new genus)
AMPHNEWPTAX	Proportion of All Species that are Amphora (new genus)
AMPHNEWRICRICH	Amphora (new genus) Species Richness
AMPHOLDNIND	Abundance of Amphora (old genus)
AMPHOLDPIIND	Proportion of Individuals that are Amphora (old genus)
AMPHOLDPTAX	Proportion of All Species that are Amphora (old genus)
AMPHOLDRICH	Amphora (old genus) Species Richness
COCCNEWNIND	Abundance of Cocconeis (new genus)
COCCNEWPIIND	Proportion of Individuals that are Cocconeis (new genus)
COCCNEWPTAX	Proportion of All Species that are Cocconeis (new genus)
COCCNEWRICRICH	Cocconeis (new genus) Species Richness
COCCOLDNIND	Abundance of Cocconeis (old genus)
COCCOLDPIIND	Proportion of Individuals that are Cocconeis (old genus)
COCCOLDPTAX	Proportion of All Species that are Cocconeis (old genus)
COCCOLDRICH	Cocconeis (old genus) Species Richness
CYCLNEWNIND	Abundance of Cyclotella (new genus)
CYCLNEWPIIND	Proportion of Individuals that are Cyclotella (new genus)
CYCLNEWPTAX	Proportion of All Species that are Cyclotella (new genus)

CYCLNEWRICH	Cyclotella (new genus) Species Richness
CYCLOLDNIND	Abundance of Cyclotella (old genus)
CYCLOLDPIND	Proportion of Individuals that are Cyclotella (old genus)
CYCLOLDPTAX	Proportion of All Species that are Cyclotella (old genus)
CYCLOLDRICH	Cyclotella (old genus) Species Richness
CYMBNEWNIND	Abundance of Cymbella (new genus)
CYMBNEWPIND	Proportion of Individuals that are Cymbella (new genus)
CYMBNEWPTAX	Proportion of All Species that are Cymbella (new genus)
CYMBNEWRICH	Cymbella (new genus) Species Richness
CYMBOLDNIND	Abundance of Cymbella (old genus)
CYMBOLDPIND	Proportion of Individuals that are Cymbella (old genus)
CYMBOLDPTAX	Proportion of All Species that are Cymbella (old genus)
CYMBOLDRICH	Cymbella (old genus) Species Richness
CYNVNEWPIND	Proportion of Individuals - Cymbella/(Cymbella + Navicula) (ne
CYNVNEWPTAX	Proportion of Species - Cymbella/(Cymbella + Navicula) (new ge
CYNVOLDPIND	Proportion of Individuals - Cymbella/(Cymbella + Navicula) (ol
CYNVOLDPTAX	Proportion of Species - Cymbella/(Cymbella + Navicula) (old ge
DATE_COL	MMDDYY10. MMDDYY10. Site Visit Date from Verification Form
DIA1PIND	Proportion of Diatom Individuals in Dominant Taxa
DIA3PIND	Proportion of Diatom Individuals in Top 3 Taxa
DIA5PIND	Proportion of Diatom Individuals in Top 5 Taxa
DIATOMNIND	Abundance of all Diatoms
DIATOMRICH	Total Diatom Richness - 600 subsample
D_HPRIME	Shannon Diversity
D_JPRIME	Diatom Pielou Evenness
D_SIMPSON	Simpson Index
D_WA_NOR	Weighted Average of Nitrogen Metabolism (Van Dam)
D_WA_OXY	Weighted Average of Oxygen Tolerance (Van Dam)
D_WA_PTC	Weighted Average of Pollution Tolerance (Bahls)
D_WA_SAL	Weighted Average of Salinity Tolerance (Van Dam)
D_WA_SAP	Weighted Average of Saprobic Class (Van Dam)
D_WA_TRO	Weighted Average of Trophic State Class (Van Dam)

EPITNEWNIND	Abundance of Epithemia (new genus)
EPITNEWPIND	Proportion of Individuals that are Epithemia (new genus)
EPITNEWPTAX	Proportion of All Species that are Epithemia (new genus)
EPITNEWRICH	Epithemia (new genus) Species Richness
EPITOLDNIND	Abundance of Epithemia (old genus)
EPITOLDPIND	Proportion of Individuals that are Epithemia (old genus)
EPITOLDPTAX	Proportion of All Species that are Epithemia (old genus)
EPITOLDRICH	Epithemia (old genus) Species Richness
EPRHNEWPIND	Proportion of Individuals - Epithemia/(Epithemia + Rhopalodia)
EPRHNEWPTAX	Proportion of Species - Epithemia/(Epithemia + Rhopalodia) (ne
EPRHNEWRICH	Epithemia/Rhopalodia (new genus) Taxa Richness
EPRHOLDPIND	Proportion of Individuals - Epithemia/(Epithemia + Rhopalodia)
EPRHOLDPTAX	Proportion of Species - Epithemia/(Epithemia + Rhopalodia) (ol
EPRHOLDRICH	Epithemia/Rhopalodia (old genus) Taxa Richness
EU12NIND	Abundance of Van Dam Trophic Class 1 & 2 Individuals
EU12PIND	Proportion of Individuals that are Van Dam Trophic Class 1 & 2
EU12PTAX	Proportion of All Species that are Van Dam Trophic Class 1 & 2
EU12RICH	Van Dam Trophic Class 1 & 2 Taxa Richness
EU1NIND	Abundance of Van Dam Trophic Class 1 Individuals
EU1PIND	Proportion of Individuals that are Van Dam Trophic Class 1
EU1PTAX	Proportion of All Species that are Van Dam Trophic Class 1
EU1RICH	Van Dam Trophic Class 1 Taxa Richness
EU56NIND	Abundance of Van Dam Trophic Class 5 & 6 Individuals
EU56PIND	Proportion of Individuals that are Van Dam Trophic Class 5 & 6
EU56PTAX	Proportion of All Species that are Van Dam Trophic Class 5 & 6
EU56RICH	Van Dam Trophic Class 5 & 6 Taxa Richness
EU6NIND	Abundance of Van Dam Trophic Class 6 Individuals
EU6PIND	Proportion of Individuals that are Van Dam Trophic Class 6
EU6PTAX	Proportion of All Species that are Van Dam Trophic Class 6
EU6RICH	Van Dam Trophic Class 6 Taxa Richness
EUNONEWNIND	Abundance of Eunotia (new genus)
EUNONEWPIND	Proportion of Individuals that are Eunotia (new genus)

EUNONEWPTAX	Proportion of All Species that are Eunotia (new genus)
EUNONEWRICH	Eunotia (new genus) Species Richness
EUNOOLDNIND	Abundance of Eunotia (old genus)
EUNOOLDPIND	Proportion of Individuals that are Eunotia (old genus)
EUNOOLDPTAX	Proportion of All Species that are Eunotia (old genus)
EUNOOLDRICH	Eunotia (old genus) Species Richness
FRAGNEWNIND	Abundance of Fragilaria (new genus)
FRAGNEWPIND	Proportion of Individuals that are Fragilaria (new genus)
FRAGNEWPTAX	Proportion of All Species that are Fragilaria (new genus)
FRAGNEWRICH	Fragilaria (new genus) Species Richness
FRAGOLDNIND	Abundance of Fragilaria (old genus)
FRAGOLDPIND	Proportion of Individuals that are Fragilaria (old genus)
FRAGOLDPTAX	Proportion of All Species that are Fragilaria (old genus)
FRAGOLDRICH	Fragilaria (old genus) Species Richness
FRUSNEWNIND	Abundance of Frustulia (new genus)
FRUSNEWPIND	Proportion of Individuals that are Frustulia (new genus)
FRUSNEWPTAX	Proportion of All Species that are Frustulia (new genus)
FRUSNEWRICH	Frustulia (new genus) Species Richness
FRUSOLDNIND	Abundance of Frustulia (old genus)
FRUSOLDPIND	Proportion of Individuals that are Frustulia (old genus)
FRUSOLDPTAX	Proportion of All Species that are Frustulia (old genus)
FRUSOLDRICH	Frustulia (old genus) Species Richness
GDENIND	Abundance of Erect Individuals
GDEPIND	Proportion of Individuals that are Erect
GDEPTAX	Proportion of All Species that are Erect
GDERICH	Erect Taxa Richness
GDPNIND	Abundance of Prostate Individuals
GDPPIND	Proportion of Individuals that are Prostate
GDPPTAX	Proportion of All Species that are Prostate
GDPRICH	Prostate Taxa Richness
GDSNIND	Abundance of Stalked Individuals
GDSPIND	Proportion of Individuals that are Stalked

GDSPTAX	Proportion of All Species that are Stalked
GDSRICH	Stalked Taxa Richness
GDUNIND	Abundance of Unattached Individuals
GDUPIND	Proportion of Individuals that are Unattached
GDUPTAX	Proportion of All Species that are Unattached
GDURICH	Unattached Taxa Richness
GENRICH_NEW	Number of Genera (new)
GENRICH_OLD	Number of Genera (old)
GOMPNEWNIND	Abundance of Gomphonema (new genus)
GOMPNEWPIND	Proportion of Individuals that are Gomphonema (new genus)
GOMPNEWPTAX	Proportion of All Species that are Gomphonema (new genus)
GOMPNEWRICH	Gomphonema (new genus) Species Richness
GOMPOLDNIND	Abundance of Gomphonema (old genus)
GOMPOLDPIND	Proportion of Individuals that are Gomphonema (old genus)
GOMPOLDPTAX	Proportion of All Species that are Gomphonema (old genus)
GOMPOLDRICH	Gomphonema (old genus) Species Richness
MOTHNIND	Abundance of Bahls Highly Motile Individuals
MOTHPIND	Proportion of Individuals that are Bahls Highly Motile
MOTHPTAX	Proportion of All Species that are Bahls Highly Motile
MOTHRICH	Bahls Highly Motile Taxa Richness
MOTMNIND	Abundance of Bahls Moderately and Highly Motile Individuals
MOTMPIND	Proportion of Individuals that are Bahls Moderately and Highly
MOTMPTAX	Proportion of All Species that are Bahls Moderately and Highly
MOTMRICH	Bahls Moderately and Highly Motile Taxa Richness
MOTNNIND	Abundance of Bahls Non-Motile Individuals
MOTNPIND	Proportion of Individuals that are Bahls Non-Motile
MOTNPTAX	Proportion of All Species that are Bahls Non-Motile
MOTNRICH	Bahls Non-Motile Taxa Richness
MS12NIND	Abundance of Van Dam Moisture Class 1 & 2 Individuals
MS12PIND	Proportion of Individuals that are Van Dam Moisture Class 1 &
MS12PTAX	Proportion of All Species that are Van Dam Moisture Class 1 &
MS12RICH	Van Dam Moisture Class 1 & 2 Taxa Richness

MS45NIND	Abundance of Van Dam Moisture Class 4 & 5 Individuals
MS45PIND	Proportion of Individuals that are Van Dam Moisture Class 4 &
MS45PTAX	Proportion of All Species that are Van Dam Moisture Class 4 &
MS45RICH	Van Dam Moisture Class 4 & 5 Taxa Richness
NAVINEWNIND	Abundance of Navicula (new genus)
NAVINEWPIND	Proportion of Individuals that are Navicula (new genus)
NAVINEWPTAX	Proportion of All Species that are Navicula (new genus)
NAVINEWRICH	Navicula (new genus) Species Richness
NAVIOLDNIND	Abundance of Navicula (old genus)
NAVIOLDPIND	Proportion of Individuals that are Navicula (old genus)
NAVIOLDPTAX	Proportion of All Species that are Navicula (old genus)
NAVIOLDRICH	Navicula (old genus) Species Richness
NITZNEWNIND	Abundance of Nitzschia (new genus)
NITZNEWPIND	Proportion of Individuals that are Nitzschia (new genus)
NITZNEWPTAX	Proportion of All Species that are Nitzschia (new genus)
NITZNEWRICH	Nitzschia (new genus) Species Richness
NITZOLDNIND	Abundance of Nitzschia (old genus)
NITZOLDPIND	Proportion of Individuals that are Nitzschia (old genus)
NITZOLDPTAX	Proportion of All Species that are Nitzschia (old genus)
NITZOLDRICH	Nitzschia (old genus) Species Richness
NM34NIND	Abundance of Van Dam Nitrogen Metabolism Class 3 & 4 Individua
NM34PIND	Proportion of Individuals that are Van Dam Nitrogen Metabolism
NM34PTAX	Proportion of All Species that are Van Dam Nitrogen Metabolism
NM34RICH	Van Dam Nitrogen Metabolism Class 3 & 4 Taxa Richness
NM4NIND	Abundance of Van Dam Nitrogen Metabolism Class 4 Individuals
NM4PIND	Proportion of Individuals that are Van Dam Nitrogen Metabolism
NM4PTAX	Proportion of All Species that are Van Dam Nitrogen Metabolism
NM4RICH	Van Dam Nitrogen Metabolism Class 4 Taxa Richness
OX12NIND	Abundance of Van Dam Oxygen Requirements Class 1 & 2 Individua
OX12PIND	Proportion of Individuals that are Van Dam Oxygen Requirements
OX12PTAX	Proportion of All Species that are Van Dam Oxygen Requirements
OX12RICH	Van Dam Oxygen Requirements Class 1 & 2 Taxa Richness

OX1NIND	Abundance of Van Dam Oxygen Requirements Class 1 Individuals
OX1PIND	Proportion of Individuals that are Van Dam Oxygen Requirements
OX1PTAX	Proportion of All Species that are Van Dam Oxygen Requirements
OX1RICH	Van Dam Oxygen Requirements Class 1 Taxa Richness
OX45NIND	Abundance of Van Dam Oxygen Requirements Class 4 & 5 Individua
OX45PIND	Proportion of Individuals that are Van Dam Oxygen Requirements
OX45PTAX	Proportion of All Species that are Van Dam Oxygen Requirements
OX45RICH	Van Dam Oxygen Requirements Class 4 & 5 Taxa Richness
OX5NIND	Abundance of Van Dam Oxygen Requirements Class 5 Individuals
OX5PIND	Proportion of Individuals that are Van Dam Oxygen Requirements
OX5PTAX	Proportion of All Species that are Van Dam Oxygen Requirements
OX5RICH	Van Dam Oxygen Requirements Class 5 Taxa Richness
PH12NIND	Abundance of Van Dam Acidophilic Individuals
PH12PIND	Proportion of Individuals that are Van Dam Acidophilic
PH12PTAX	Proportion of All Species that are Van Dam Acidophilic
PH12RICH	Van Dam Acidophilic Taxa Richness
PH1NIND	Abundance of Van Dam Acidibiontic Individuals
PH1PIND	Proportion of Individuals that are Van Dam Acidibiontic
PH1PTAX	Proportion of All Species that are Van Dam Acidibiontic
PH1RICH	Van Dam Acidibiontic Taxa Richness
PH45NIND	Abundance of Van Dam Alkaphillic Individuals
PH45PIND	Proportion of Individuals that are Van Dam Alkaphillic
PH45PTAX	Proportion of All Species that are Van Dam Alkaphillic
PH45RICH	Van Dam Alkaphillic Taxa Richness
PH5NIND	Abundance of Van Dam Alkabiontic Individuals
PH5PIND	Proportion of Individuals that are Van Dam Alkabiontic
PH5PTAX	Proportion of All Species that are Van Dam Alkabiontic
PH5RICH	Van Dam Alkabiontic Taxa Richness
PTC12NIND	Abundance of Bahls Pollution Tolerance Class - Tolerant 1& 2 I
PTC12PIND	Proportion of Individuals that are Bahls Pollution Tolerance C
PTC12PTAX	Proportion of All Species that are Bahls Pollution Tolerance C
PTC12RICH	Bahls Pollution Tolerance Class - Tolerant 1& 2 Taxa Richness

PTC1NIND	Abundance of Bahls Pollution Tolerance Class - Tolerant 1 Indi
PTC1PIND	Proportion of Individuals that are Bahls Pollution Tolerance C
PTC1PTAX	Proportion of All Species that are Bahls Pollution Tolerance C
PTC1RICH	Bahls Pollution Tolerance Class - Tolerant 1 Taxa Richness
PTC3NIND	Abundance of Bahls Pollution Tolerance Class - Sensitive 3 In
PTC3PIND	Proportion of Individuals that are Bahls Pollution Tolerance C
PTC3PTAX	Proportion of All Species that are Bahls Pollution Tolerance C
PTC3RICH	Bahls Pollution Tolerance Class - Sensitive 3 Taxa Richness
RHOINEWNIND	Abundance of Rhoicosphenia (new genus)
RHOINEWPIND	Proportion of Individuals that are Rhoicosphenia (new genus)
RHOINEWPTAX	Proportion of All Species that are Rhoicosphenia (new genus)
RHOINEWRICH	Rhoicosphenia (new genus) Species Richness
RHOIOLDNIND	Abundance of Rhoicosphenia (old genus)
RHOIOLDPIND	Proportion of Individuals that are Rhoicosphenia (old genus)
RHOIOLDPTAX	Proportion of All Species that are Rhoicosphenia (old genus)
RHOIOLDRICH	Rhoicosphenia (old genus) Species Richness
RHOPNEWNIND	Abundance of Rhopalodia (new genus)
RHOPNEWPIND	Proportion of Individuals that are Rhopalodia (new genus)
RHOPNEWPTAX	Proportion of All Species that are Rhopalodia (new genus)
RHOPNEWRICH	Rhopalodia (new genus) Species Richness
RHOPOLDNIND	Abundance of Rhopalodia (old genus)
RHOPOLDPIND	Proportion of Individuals that are Rhopalodia (old genus)
RHOPOLDPTAX	Proportion of All Species that are Rhopalodia (old genus)
RHOPOLDRICH	Rhopalodia (old genus) Species Richness
SAL1NIND	Abundance of Van Dam Halophillic 1 Individuals
SAL1PIND	Proportion of Individuals that are Van Dam Halophillic 1
SAL1PTAX	Proportion of All Species that are Van Dam Halophillic 1
SAL1RICH	Van Dam Halophillic 1 Taxa Richness
SAL2NIND	Abundance of Van Dam Halobiontic 2 Individuals
SAL2PIND	Proportion of Individuals that are Van Dam Halobiontic 2
SAL2PTAX	Proportion of All Species that are Van Dam Halobiontic 2
SAL2RICH	Van Dam Halobiontic 2 Taxa Richness

SAMPLED	Site sampled code
SAMPTYPE	Sample type (ID, PLK, STAR)
SITE_ID	Site ID
SITE_YEAR_VISIT_T	Unique site-visit-samptype identifier
SR12NIND	Abundance of Van Dam Saprobic Class 1 & 2 Individuals
SR12PIND	Proportion of Individuals that are Van Dam Saprobic Class 1 &
SR12PTAX	Proportion of All Species that are Van Dam Saprobic Class 1 &
SR12RICH	Van Dam Saprobic Class 1 & 2 Taxa Richness
SR1NIND	Abundance of Van Dam Saprobic Class 1 Individuals
SR1PIND	Proportion of Individuals that are Van Dam Saprobic Class 1
SR1PTAX	Proportion of All Species that are Van Dam Saprobic Class 1
SR1RICH	Van Dam Saprobic Class 1 Taxa Richness
SR45NIND	Abundance of Van Dam Saprobic Class 4 & 5 Individuals
SR45PIND	Proportion of Individuals that are Van Dam Saprobic Class 4 &
SR45PTAX	Proportion of All Species that are Van Dam Saprobic Class 4 &
SR45RICH	Van Dam Saprobic Class 4 & 5 Taxa Richness
SR5NIND	Abundance of Van Dam Saprobic Class 5 Individuals
SR5PIND	Proportion of Individuals that are Van Dam Saprobic Class 5
SR5PTAX	Proportion of All Species that are Van Dam Saprobic Class 5
SR5RICH	Van Dam Saprobic Class 5 Taxa Richness
SURINEWNIND	Abundance of <i>Surirella</i> (new genus)
SURINEWPIND	Proportion of Individuals that are <i>Surirella</i> (new genus)
SURINEWPTAX	Proportion of All Species that are <i>Surirella</i> (new genus)
SURINEWRICH	<i>Surirella</i> (new genus) Species Richness
SURIOLDNIND	Abundance of <i>Surirella</i> (old genus)
SURIOLDPIND	Proportion of Individuals that are <i>Surirella</i> (old genus)
SURIOLDPTAX	Proportion of All Species that are <i>Surirella</i> (old genus)
SURIOLDRICH	<i>Surirella</i> (old genus) Species Richness
SYNESEWNIND	Abundance of <i>Synedra</i> (new genus)
SYNESEWPIND	Proportion of Individuals that are <i>Synedra</i> (new genus)
SYNESEWPTAX	Proportion of All Species that are <i>Synedra</i> (new genus)
SYNESEWRICH	<i>Synedra</i> (new genus) Species Richness

SYNEOLDNIND	Abundance of Synedra (old genus)
SYNEOLDPIND	Proportion of Individuals that are Synedra (old genus)
SYNEOLDPTAX	Proportion of All Species that are Synedra (old genus)
SYNEOLDRICH	Synedra (old genus) Species Richness
VISIT_NO	Site Visit Number (within year)
YEAR	Year of Site Visit