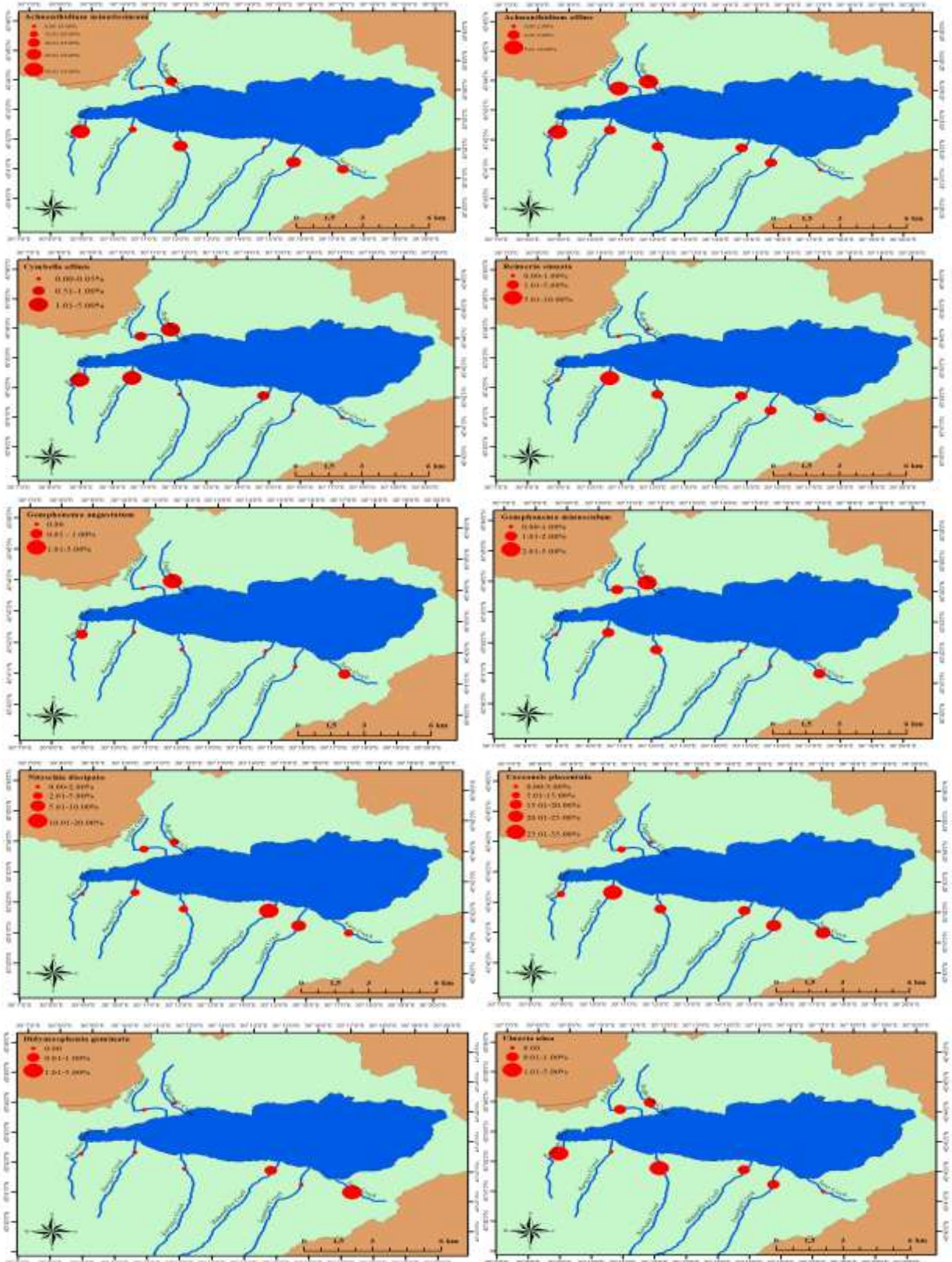


Supplementary Material



Supplementary Material Figure 1. Distribution and mean annual relative abundance (%) of *Achnanthes minutissimum*, *Achnanthes affine*, *Cymbella affinis*, *Reimeria sinuata*, *Gomphonema angustatum*, *Gomphonema minusculum*, *Nitzschia dissipata*, *Cocconeis placentula*, *Didymosphenia geminata*, and *Ulnaria ulna* in the eight creeks of Lake Sapanca.

Supplementary Material Table 1. Monthly data of relative abundance (%) of 19 dominant diatom species (>30%) in the sampling stations of eight creeks feeding Lake Sapanca. (Codes of species were given in Table 3).

1st st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16
ACAF	0.00	0.00	32.56	0.00	11.48	0.00	0.00	24.17	0.00	1.51	0.00	8.41
ADMI	1.55	0.00	32.33	93.00	20.00	2.80	0.00	25.59	63.11	1.21	50.00	15.53
ACHS	9.33	11.11	0.00	0.00	0.00	0.00	14.29	0.00	0.00	0.00	0.00	0.97
CAFF	0.26	0.00	1.15	0.00	14.07	0.00	0.00	2.84	0.00	0.00	0.00	0.00
CPLA	0.00	2.22	16.86	0.00	0.00	0.30	0.00	7.11	0.65	0.30	0.00	0.32
DVUL	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	58.31	0.00	1.29
DGEM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GANG	0.00	3.33	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	50.00	1.62
GMIS	0.00	0.00	5.08	0.00	0.00	50.00	0.00	7.11	0.00	0.00	0.00	0.00
GPAR	8.55	0.00	0.00	0.00	30.37	0.00	0.00	0.95	6.15	0.60	0.00	1.62
GTRU	5.44	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NLAN	0.00	0.00	0.00	0.00	0.00	0.00	7.14	0.00	0.00	0.00	0.00	0.00
NCPL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.30	0.00	0.00
NDIS	12.44	0.00	0.23	0.00	0.37	0.00	0.00	0.47	0.97	0.00	0.00	20.71
PLSP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RSIN	0.78	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SBRE	19.95	1.11	0.00	0.00	0.00	0.00	0.00	2.37	0.00	2.72	0.00	13.59
SURS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UULN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.02	0.00	0.00
2nd st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16
ACAF	0.00	4.38	11.18	0.00	0.00	0.00	0.00	0.00	40.19	0.00	11.02	36.73
ADMI	5.34	8.08	25.33	0.00	6.37	0.70	0.00	0.00	41.60	5.68	16.95	54.80
ACHS	0.00	11.11	9.54	9.09	1.27	1.40	0.00	50.00	0.00	0.00	1.69	0.00
CAFF	0.50	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.42	0.00
CPLA	0.00	8.42	43.09	18.18	39.49	40.70	0.00	0.00	0.96	0.00	8.05	0.87
DVUL	0.00	0.00	0.00	0.00	0.64	0.34	0.00	0.00	0.00	0.00	0.00	0.00
DGEM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GANG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GMIS	0.00	0.00	0.99	9.09	1.59	0.34	0.00	0.00	0.96	0.00	1.27	0.00
GPAR	0.00	0.34	0.00	9.09	0.96	2.71	0.00	0.00	0.48	3.15	8.47	0.00
GTRU	2.00	1.68	0.33	18.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NLAN	0.00	1.01	0.00	0.00	0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00
NCPL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00
NDIS	19.70	3.03	0.33	0.00	2.87	0.00	0.00	0.00	0.48	13.56	2.54	1.17
PLSP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	0.32	0.00	0.00
RSIN	0.33	0.00	0.00	0.00	1.59	2.03	0.00	0.00	0.00	0.00	0.42	0.00
SBRE	37.06	3.37	1.32	0.00	0.00	0.00	0.00	0.00	1.91	20.50	3.81	3.21
SURS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UULN	0.33	0.00	0.00	0.00	0.64	1.40	0.00	0.00	0.00	0.95	1.69	0.29
3rd st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16
ACAF	0.00	0.00	0.97	0.00	28.60	6.28	11.11	17.72	0.00	8.97	0.95	42.38
ADMI	0.00	1.85	4.85	0.00	61.16	17.87	46.35	69.94	70.49	65.86	9.05	48.17

ACHS	0.00	5.56	3.88	0.00	0.47	1.93	0.00	0.00	0.00	0.00	0.00	0.00
CAFF	16.67	1.85	0.00	0.00	0.00	0.00	0.00	0.00	3.17	3.10	0.00	0.30
CPLA	33.33	11.11	9.22	50.00	2.33	13.04	5.71	3.16	12.68	2.76	16.19	1.52
DVUL	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00
DGEM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GANG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.34	0.00	0.00
GMIS	0.00	0.00	0.00	0.00	0.00	2.90	0.00	0.32	1.22	0.00	0.48	0.00
GPAR	0.00	0.00	0.97	0.00	0.23	0.00	2.54	1.27	0.98	0.34	8.57	3.35
GTRU	0.00	1.85	0.97	0.00	0.00	0.48	5.71	0.00	0.98	10.34	0.00	0.00
NLAN	0.00	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NCPL	0.00	3.70	0.00	0.00	0.00	0.97	0.32	0.00	0.00	0.00	1.43	0.00
NDIS	0.00	0.00	0.49	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00
PLSP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RSIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00
SBRE	0.00	1.85	0.49	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.32
SURS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UULN	0.33	16.67	3.88	0.00	0.64	1.40	2.22	0.00	0.73	0.34	2.86	1.22

4th st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16
ACAF	0.46	2.00	0.00	2.24	0.78	0.00	0.00	0.00	0.00	7.67	17.95	10.26
ADMI	28.94	1.67	21.67	9.29	22.60	5.86	14.29	43.75	33.33	25.00	0.00	67.16
ACHS	10.42	6.33	3.42	9.62	1.82	3.58	4.76	12.50	0.00	0.00	0.00	2.93
CAFF	0.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00	33.33	1.00	0.00	0.00
CPLA	1.85	25.33	70.34	31.73	65.97	71.01	42.86	18.75	33.33	36.33	5.13	3.81
DVUL	0.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DGEM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GANG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GMIS	0.00	4.00	0.00	1.92	0.26	1.63	0.00	6.25	0.00	0.00	0.00	0.00
GPAR	1.85	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GTRU	0.00	1.67	0.00	0.00	0.00	0.00	9.52	0.00	0.00	1.00	0.00	0.00
NLAN	12.73	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
NCPL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NDIS	9.49	0.00	0.00	1.28	0.26	0.33	0.00	0.00	0.00	3.33	5.13	1.17
PLSP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RSIN	7.87	12.67	3.42	29.81	1.30	8.14	7.14	0.00	0.00	5.67	10.26	9.68
SBRE	4.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.67	0.00	0.29
SURS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UULN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00

5th st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16
ACAF	15.14	6.13	1.42	2.27	2.69	0.66	0.00	4.84	0.00	4.65	0.00	6.97
ADMI	35.96	56.77	7.09	4.55	24.24	13.82	0.00	77.42	66.66	9.63	13.60	40.30
ACHS	2.21	1.94	1.42	0.00	1.01	0.00	7.69	0.00	0.00	0.00	0.80	2.99
CAFF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
CPLA	25.24	3.87	50.35	13.64	49.16	15.79	30.77	1.61	0.00	0.00	81.20	2.49
DVUL	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DGEM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GANG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GMIS	0.00	0.32	2.13	6.82	1.01	2.63	0.00	4.84	0.00	0.00	0.00	0.50
GPAR	0.32	0.97	0.71	2.27	0.00	0.99	0.00	1.61	0.00	0.33	0.40	1.00

Supplementary Material Table 2. Monthly data of TIT (Trophic Index Turkey), EQR (Ecological Quality Ratio), EPI-D (Eutrophication and/or Pollution Index-Diatom), IPS (Specific Pollution Sensitivity Index), and TDI (Trophic Diatom Index) indices of the sampling stations in eight creeks feeding Lake Sapanca

1st st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16	Mean
TIT	2.09	2.94	1.3	1.14	2.12	2.21	3.12	1.79	1.41	0.98	1.8	1.75	1.89
EQR	0.54	0.25	0.82	0.87	0.54	0.5	0.19	0.65	0.78	0.92	0.64	0.66	0.61
Status	poor	bad	good	good	poor	poor	bad	moderate	good	high	moderate	moderate	moderate
EPI-D	14.2	15.4	14.6	20	14.2	16.7	12.2	15	11.1	12.8	12.9	14.6	14.48
Status	good	good	good	high	good	high	good	good	moderate	good	good	good	good
IPS	14.7	17.8	16.8	15.3	11.7	16.8	13.8	14.7	14.4	14.9	10.49	13.9	14.61
Status	moderate	high	good	good	poor	good	moderate	moderate	moderate	moderate	poor	moderate	moderate
TDI	3.8	10.4	12.6	10.4	7.6	9.6	3.8	11.8	8	1.2	13.7	7.4	8.36
Status	high	moderate	moderate	moderate	good	good	high	moderate	good	high	poor	good	good
2nd st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16	Mean
TIT	2.37	1.58	1.42	2.56	1.67	2.78	1.7	1.37	1.32	2.45	1.9	1.24	1.86
EQR	0.45	0.72	0.77	0.38	0.69	0.31	0.3	0.28	0.81	0.42	0.61	0.84	0.55
Status	bad	moderate	good	bad	moderate	bad	moderate	good	good	bad	moderate	good	moderate
EPI-D	11.5	13.1	14	14.3	11.1	12.8	10	20	16.9	9.4	13.4	16.6	13.59
Status	moderate	good	good	good	moderate	good	moderate	high	high	moderate	good	high	good
IPS	12.3	13.7	15.4	14.6	9.4	12.8	15.9	19.1	15.7	11.4	11.2	19	14.21
Status	moderate	moderate	good	moderate	poor	moderate	good	high	good	poor	poor	high	moderate
TDI	6.7	8.7	10.9	8.5	8	9.1	3.1	10.4	12.8	5.4	8	14.9	8.88
Status	high	good	moderate	good	good	good	high	moderate	moderate	high	good	poor	good
3rd st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16	Mean
TIT	2.65	2.6	2.72	2.86	1.2	2.36	1.44	1.37	1.3	1.39	2.08	1.3	1.94
EQR	0.35	0.37	0.33	0.28	0.85	0.45	0.77	0.79	0.82	0.78	0.55	0.81	0.60
Status	bad	bad	bad	bad	good	bad	moderate	good	good	good	poor	good	moderate
EPI-D	15.3	11	9.7	13.1	17.5	11.9	14.6	15.9	14.9	14.3	9.8	16.2	13.68
Status	good	moderate	moderate	good	high	moderate	moderate	good	good	good	moderate	high	good

IPS	13.2	10.5	9.7	9.3	16	11.8	12.6	15.4	15.1	14.4	10.2	19	13.10
Status	moderate	poor	poor	poor	good	poor	moderate	good	good	moderate	poor	high	moderate
TDI	14.1	8	7.9	8.8	12.6	9.9	10.4	11.3	11.1	11.6	6.6	14.3	10.55
Status	poor	good	good	good	good	good	moderate	moderate	moderate	moderate	high	poor	moderate
4th st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16	Mean
TIT	1.44	1.8	1.12	1.24	1.18	1.83	3.12	1.95	1.24	1.4	0.76	1.17	1.52
EQR	0.77	0.64	0.88	0.84	0.86	0.63	0.19	0.59	0.83	0.78	1	0.86	0.74
Status	moderate	moderate	good	good	good	moderate	bad	moderate	good	good	high	good	good
EPI-D	11.5	14.3	15.1	14.5	15.3	14.8	13.2	13.8	15.3	14.9	15.9	16.7	14.61
Status	moderate	good	good	good	good	good	good	good	good	good	good	high	good
IPS	13.5	9.9	15.4	8.8	15	12.7	12	12.9	15.2	12.7	11.2	15.1	12.87
Status	moderate	poor	good	bad	good	moderate	moderate	moderate	good	moderate	poor	good	moderate
TDI	5.9	8.1	10.1	8	10.3	9.7	10.9	9.4	15.3	10	9.5	13	10.02
Status	high	good	good	good	good	good	good	good	poor	good	good	moderate	moderate
5th st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16	Mean
TIT	1.18	1.92	2.82	2.53	1.54	2.03	3.13	1.3	1.7	2.12	1.17	1.31	1.90
EQR	0.86	0.6	0.29	0.39	0.73	0.57	0.19	0.81	0.68	0.53	0.86	0.81	0.61
Status	good	moderate	bad	bad	good	poor	bad	good	moderate	poor	good	good	moderate
EPI-D	13.9	11.9	13.4	13.1	13.8	11.2	13.8	15.3	10.5	14.1	15.1	16.1	13.52
Status	good	moderate	good	good	good	moderate	good	good	moderate	good	good	high	good
IPS	14.6	11.9	13	11.5	14.3	10.2	14.5	15.4	14.3	13.5	14.7	14.8	13.56
Status	moderate	poor	moderate	poor	moderate	poor	moderate	good	moderate	moderate	moderate	moderate	moderate
TDI	10.1	9	9.1	6.1	9.5	6.6	8.6	10.3	10.4	6.7	10.2	11.9	9.04
Status	moderate	good	good	high	good	high	good	moderate	moderate	high	moderate	moderate	good
6th st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16	Mean
TIT	1.39	1.6	1.31	1.58	1.08	1.18	1.59	1.75	2.74	2.24	1.18	1.14	1.57
EQR	0.78	0.71	0.81	0.72	0.89	0.86	0.72	0.66	0.32	0.49	0.85	0.87	0.72
Status	good	moderate	good	moderate	good	good	moderate	moderate	bad	poor	good	good	good
EPI-D	12.6	11.2	13	13.3	13.9	14.4	13.1	11.6	5.5	10.6	12.6	16.6	12.37
Status	good	moderate	good	good	good	good	good	moderate	poor	moderate	good	high	good

IPS	14.5	13.8	13.6	12.8	13.2	13.7	15.3	16.2	12	13.9	14.5	18.7	14.35
Status	moderate	moderate	moderate	moderate	moderate	moderate	good	good	moderate	moderate	moderate	high	moderate
TDI	7.3	6.4	8.4	8.2	5.4	7.7	10.4	2.2	3.2	7	7.2	14.7	7.34
Status	good	high	good	good	high	good	moderate	high	high	high	good	poor	good
7th st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16	Mean
TIT	1.8	1.86	1.77	1.98	1.81	1.57	2.97	3.45	1.54	1.46	1.71	1.5	1.95
EQR	0.66	0.65	0.69	0.62	0.66	0.76	0.28	0.22	0.74	0.7	0.62	0.73	0.61
Status	moderate	moderate	moderate	moderate	moderate	good	bad	bad	good	good	moderate	good	moderate
EPI-D	15	15	14.9	12.6	14.7	13.9	13.2	8.9	15.3	15.7	12.7	15.9	13.98
Status	good	good	good	good	good	good	good	moderate	good	good	good	good	good
IPS	14.8	13.9	13.4	13.5	13.2	15.1	13.4	16.1	15.3	14.5	15.1	16.1	14.53
Status	moderate	moderate	moderate	moderate	moderate	good	moderate	good	good	moderate	good	good	moderate
TDI	9.7	10.2	9.8	8.1	8.8	6.9	9.4	1.6	10.4	10.6	5.8	11.5	8.57
Status	good	moderate	good	good	good	high	good	high	moderate	moderate	high	moderate	good
8th st.	Mr15	Ap15	My15	Jn15	Jl15	Ag15	Sp15	Oc15	Nv15	Dc15	Jn16	Fb16	Mean
TIT	1.44	1.39	2.63	1.37	2.53	1.46	1.45	1.45	2.66	2.68	2.28	1.53	1.91
EQR	0.76	0.78	0.35	0.79	0.56	0.71	0.72	0.72	0.31	0.29	0.43	0.69	0.59
Status	good	good	bad	good	bad	good	good	good	bad	bad	poor	good	moderate
EPI-D	14.2	14.9	11.5	14.2	8	12.3	20	15.3	15.3	3.9	13.1	16.1	13.23
Status	good	good	moderate	good	poor	moderate	high	good	good	bad	good	good	good
IPS	12.2	14.9	12.4	17.1	9.5	15.3	15.3	15.3	18.8	6	10	16.7	13.63
Status	moderate	moderate	moderate	high	poor	good	good	good	high	bad	poor	good	moderate
TDI	7.8	9.4	8.4	11.3	6.4	9.8	10.4	10.4	10.4	4.9	5.6	12.1	8.91
Status	good	good	good	moderate	high	good	moderate	moderate	moderate	high	high	poor	good