

## Supplementary material

**Table S1:** Detailed list of the aquatic invertebrate taxa, family (unless otherwise specified) and their abundance in Lake Nyamithi in each sampling survey during the pre-drought (2014), drought (2016) and recovery (2017) hydrologic periods

Taxon name	Family	September 2014	December 2014	May 2016	August 2016	December 2016	February 2017	May 2017	August 2017	November 2017
<i>Anax</i> sp.	Aeshnidae	54	10	0	0	0	0	0	0	0
<i>Burnupia</i> sp.	Ancylidae	0	11	0	0	0	0	0	0	0
<i>Caridina nilotica</i>	Atyidae	3	66	0	0	0	0	0	34	34
Baetidae	Baetidae	0	0	0	0	0	6	2	1	0
<i>Cloeon</i> and <i>Procloeon</i> sp.	Baetidae	52	67	0	0	4	0	0	0	0
<i>Appasus</i> sp.	Belostomatidae	22	118	0	0	1	33	10	184	16
<i>Lethocerus niloticus</i>	Belostomatidae	0	16	0	0	0	0	0	0	0
<i>Afrocaenis</i> sp.	Caenidae	0	0	0	0	0	3	0	0	0
<i>Bezzia</i> sp.	Ceratopogonidae	1	12	1	0	0	0	2	1	3
Ceratopogonidae	Ceratopogonidae	0	0	0	0	0	0	0	8	0
Subfamily Chironominae	Chironomidae	14	40	0	6	4	71	20	23	20
Subfamily Tanypodinae	Chironomidae	0	896	0	0	0	0	0	67	0
Subfamily Orthocladiinae	Chironomidae	10	0	0	0	0	0	0	0	0
<i>Ceragrion</i> sp.	Coenagrionidae	0	0	0	0	0	0	0	8	0
Coenagrionidae	Coenagrionidae	0	0	0	0	0	3	0	48	1
<i>Enallagma</i> sp.	Coenagrionidae	29	89	0	0	13	3	8	0	3
<i>Pseudagrion</i> sp. A	Coenagrionidae	0	0	0	0	0	31	7	34	4
<i>Corbicula fluminalis</i>	Corbiculidae	0	0	0	4	0	0	0	3	0
<i>Corbicula</i> sp.	Corbiculidae	47	5	0	0	0	0	0	0	0
<i>Agraptocorixa</i> sp. A	Corixidae	81	422	0	0	0	0	0	14	0

Table S1 continued

Taxon name	Family	September 2014	December 2014	May 2016	August 2016	December 2016	February 2017	May 2017	August 2017	November 2017
<i>Micronecta</i> sp.	Corixidae	0	0	0	0	59	7	1	25	10
<i>Sigara</i> sp.	Corixidae	0	0	78	464	50	0	0	2	15
Crambidae sp. A	Crambidae	0	0	0	0	0	0	0	1	0
Crambidae sp. B	Crambidae	1	0	0	0	0	0	0	0	0
<i>Aedes</i> sp.	Culicidae	0	0	0	161	0	0	0	0	0
<i>Anopheles</i> sp. A	Culicidae	0	4	0	0	0	0	0	0	0
<i>Anopheles</i> sp. B	Culicidae	12	0	0	1	0	0	0	0	0
<i>Culex</i> sp. A	Culicidae	0	0	0	0	1	1	0	1	0
<i>Culex</i> sp. B	Culicidae	0	0	0	1	0	0	0	0	0
<i>Malaya</i> sp.	Culicidae	0	1	0	0	0	0	0	0	0
Curculionidae	Curculionidae	0	0	0	0	0	0	0	0	1
<i>Neohydromus affinis</i>	Curculionidae	0	0	0	0	0	0	0	1	0
<i>Pseudobagous longulus</i>	Curculionidae	0	1	0	0	0	0	2	1	0
<i>Thermocyclops</i> sp.	Cyclopidae	0	0	0	0	0	960	208	16	0
Superfamily Cyprididae	Cyprididae	0	0	1	0	77	3458	0	261	46
Superfamily Darwinulidae	Darwinulidae	0	0	0	0	0	13	332	82	0
<i>Thermodiaptomus mixtus</i>	Diaptomidae	0	0	0	0	0	0	1	0	0
Dolichopodidae sp. A	Dolichopodidae	0	0	0	1	0	0	0	0	0
Dolichopodidae sp. B	Dolichopodidae	0	0	0	1	0	0	0	0	0
<i>Hydaticus</i> sp.	Dytiscidae	0	0	0	0	0	0	0	0	3
<i>Hydroglyphus</i>	Dytiscidae	0	0	0	1	2	0	0	8	1
<i>Copelatus</i> sp.	Dytiscidae	0	0	0	0	0	1	0	1	0
<i>Cybister</i> sp. A	Dytiscidae	0	0	0	0	0	0	0	0	4
<i>Cybister</i> sp. B	Dytiscidae	0	0	0	0	0	2	0	0	0







**Table S2:** List of the aquatic invertebrate taxa present in Lake Nyamithi in the pre-drought (2014), drought (2016) and recovery (2017) hydrologic periods. Various symbols indicate the presence of known halotolerant and drought tolerant invertebrate taxa within the named Family or Order. \*contains known halotolerant taxa, †contains known drought tolerant taxa.

Pre-drought (2014)	Drought (2016)	Recovery (2017)
Aeshnidae <i>Anax</i> sp.	Baetidae† <i>Cloeon</i> sp. and <i>Procloeon</i> sp.	Atyidae <i>Caridina nilotica</i>
Ancylidae <i>Burnupia</i> sp.	Belostomatidae <i>Appasus</i> sp.	Baetidae* <i>Cloeon</i> sp. and <i>Procloeon</i> sp.
Atyidae <i>Caridina nilotica</i>	Ceratopogonidae† <i>Bezzia</i> sp.	Belostomatidae <i>Appasus</i> sp.
Baetidae† <i>Cloeon</i> sp. and <i>Procloeon</i> sp.	Chironomidae† Subfamily Chironominae	Caenidae <i>Afrocaenis</i> sp.
Belostomatidae <i>Appasus</i> sp. <i>Lethocerus niloticus</i>	Coenagrionidae <i>Enallagma</i> sp.	Ceratopogonidae† <i>Bezzia</i> sp.
Ceratopogonidae† <i>Bezzia</i> sp.	Corbiculidae <i>Corbicula fluminalis</i>	Chironomidae† Subfamily Chironominae Subfamily Tanytopodinae
Chironomidae† Subfamily Chironominae Subfamily Orthocladiinae Subfamily Tanytopodinae	Corixidae* <i>Micronecta</i> sp. <i>Sigara</i> sp.	Coenagrionidae <i>Ceriagrion</i> sp. <i>Enallagma</i> sp. <i>Pseudagrion</i> sp.
Coenagrionidae <i>Enallagma</i>	Culicidae† <i>Aedes</i> sp. † <i>Anopheles</i> sp. † <i>Culex</i> sp.	Corbiculidae <i>Corbicula fluminalis</i>
Corbiculidae <i>Corbicula fluminalis</i>		Corixidae* <i>Agraptocorixa</i> sp. <i>Micronecta</i> sp. <i>Sigara</i> sp.
Corixidae* <i>Agraptocorixa</i> sp.	Dolichopodidae§	Crambidae
Crambidae	Dytiscidae† <i>Hydroglyphus</i> sp.	Culicidae † <i>Culex</i> sp.
Culicidae† † <i>Anopheles</i> sp. <i>Malaya</i> sp.	Order Harpacticoida *	Curculionidae <i>Neohydronomus affinis</i> <i>Pseudobagous longulus</i>
Curculionidae <i>Pseudobagous longulus</i>	Hydraenidae <i>Parasthetops</i> sp.	Cyclopidae§ <i>Thermocyclops</i> sp.
Dytiscidae† <i>Hyphydrus</i> sp. <i>Laccophilus</i> sp.	Hydrophilidae* <i>Berosus</i> sp.	Diaptomidae† <i>Thermodiaptomus mixtus</i>
Ephydriidae <i>Brachydeutera</i> sp.	Libellulidae† <i>Pantala flavescens</i>	Dytiscidae† <i>Copelatus</i> sp. <i>Cybister</i> sp. <i>Hydaticus</i> sp. <i>Hydroglyphus</i> sp. <i>Hydrovatus</i> sp. <i>Hyphydrus</i> sp. <i>Laccophilus</i> sp. <i>Laccotrephes</i> sp.
Gerridae <i>Naboandelus africanus</i>	Lycosidae <i>Pirata</i> sp.	Gerridae <i>Naboandelus africanus</i> <i>Neogerris severini</i> <i>Tenagonus</i> sp.

Table S2 continued

Pre-drought (2014)	Drought (2016)	Recovery (2017)
Gomphidae* <i>Ictinogomphus ferox</i>	Moinidae‡ <i>Moina micrura</i>	Gomphidae <i>Ceratogomphus</i> sp. <i>Ictinogomphus ferox</i> <i>Paragomphus</i> sp.
Hirudinea‡	Naucoridae <i>Laccocoris</i> sp.	Gyrinidae <i>Gyrinus</i> sp.
Suborder Hydrachnidae	Class Ostracoda§‡ Superfamily Cypridoidea	Order Harpacticoida*
Hydrophilidae* <i>Berosus</i> sp. <i>Hydrophilus senegalensis</i>		Hydraenidae
Libellulidae‡ <i>Brachythemis lacustris</i>		Hydrochidae <i>Hydrochus</i> sp.
Lumbriculidae‡		Hydrophilidae* * <i>Berosus</i> sp. <i>Enochrus</i> sp. <i>Hydrophilus senegalensis</i> <i>Laccobius</i> sp.
Nepidae <i>Ranatra</i> sp.		Libellulidae‡ <i>Brachythemis leucosticta</i> <i>Orthetrum</i> sp. <i>Pantala flavescens</i> <i>Tetrathemis polleni</i> <i>Trithemis</i> sp.
Noteridae <i>Canthydrus</i> sp.		Lumbriculidae‡
Notonectidae <i>Anisops</i> sp. <i>Enithares</i> sp. <i>Nychia limpida</i>		Lycosidae <i>Pirata</i> sp.
Class Ostracoda§‡		Lymnaeidae <i>Lymnaea natalensis</i>
Physidae‡ <i>Physa acuta</i>		Mesoveliidae <i>Mesovelia vittergera</i>
Planorbidae‡ <i>Bulinus africanus</i> <i>Bulinus natalensis</i> <i>Bulinus tropicus</i>		Moinidae‡ <i>Moina micrura</i>
Platycnemidae <i>Allocnemis leucosticta</i>		Naucoridae <i>Laccocoris</i> sp. <i>Macrocoris</i> sp. <i>Naucoris obscuratus</i>
Thiaridae‡ ‡ <i>Tarebia granifera</i> <i>Cleopatra</i> sp.		Nepidae <i>Ranatra</i> sp.
		Noteridae <i>Canthydrus</i> sp.
		Notonectidae <i>Anisops</i> sp. <i>Nychia limpida</i>
		Class Ostracoda§‡ Superfamily Cypridoidea Superfamily Cytheroidea Superfamily Darwinulidae
		Physidae <i>Physa acuta</i>

Table S2 continued

Pre-drought (2014)	Drought (2016)	Recovery (2017)
		Planorbidae
		<i>Bulinus depressus</i>
		Platycnemidae
		<i>Allocnemis leucosticte</i>
		Pleidae
		<i>Plea</i> sp.
		Psychodidae
		Scirtidae
		Sididae
		<i>Diaphanosoma</i> sp.
		Tabanidae
		Tetragnathidae
		<i>Tetragnatha</i> sp.
		Thiaridae*
		<i>Cleopatra</i> sp.
		Tipulidae