Supplementary Materials: Microcystin Content in Phytoplankton and in Small Fish from Eutrophic Nyanza Gulf, Lake Victoria, Kenya

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Table S1. Phytoplankton taxa which were discriminated for biovolume estimation.

Genus	Author (Genus)	depth-integrated	surface	patch	shore	Rusinga channel
Cyanobacteria						
Anabaena (*Dolichospermum*)	Bory ex Bornet & Flahault	x	x	x	x	x
Aphanocapsa	C.Nägeli					x
Chroococcus	Nägeli					x
Cyanodictyon	A.Pascher					x
Planktolyngbya	Anagnostidis & Komárek	x	x	x	x	x
Microcystis	Lemmermann	x	x	x	x	x
Romeria	M.Koczwara					x
Merismopedia	F.J.F.Meyen					x
Chlorophyceae						
Chlamydomonas	Ehrenberg	x			x	x
Coelastrum	Nägeli					x
Pediastrum	Meyen					x
Scenedesmus	Meyen					x
Staurastrum	Chodat					x
Bacillariophyceae						
Aulacoseira	Thwaites	x				
Nitzschia	Hassall					x
Cryptophyceae						
Cryptomonas	Ehrenberg	x	x	x	x	x

X, detected.

Table S2. Meteorological characteristics for dates of fish drying to study the stability of microcystin in fish samples (MET Department, Kisumu Airport).

Date	Air temperature (°C)	Irradiance (µmol photons m^{-2} s^{-1})	Evaporation (mm/day)	Wind speed (knots) (Cumulative: 11.00 am to 5.00 pm)	Relative Humidity (%)[1]
27 Oct 2011	22.7	866	4	197,084	80
8 Nov 2011	24.95	1185	6.5	83,042	35
5 Dec 2011	23.75	1297	3.5	145,086	78
9 Jan 2012	23.65	1238	6	145,076	62
10 Jan 2012	23.6	1387	6	162,056	66

[1] calculated from temperature, wind speed, and evaporation rate.

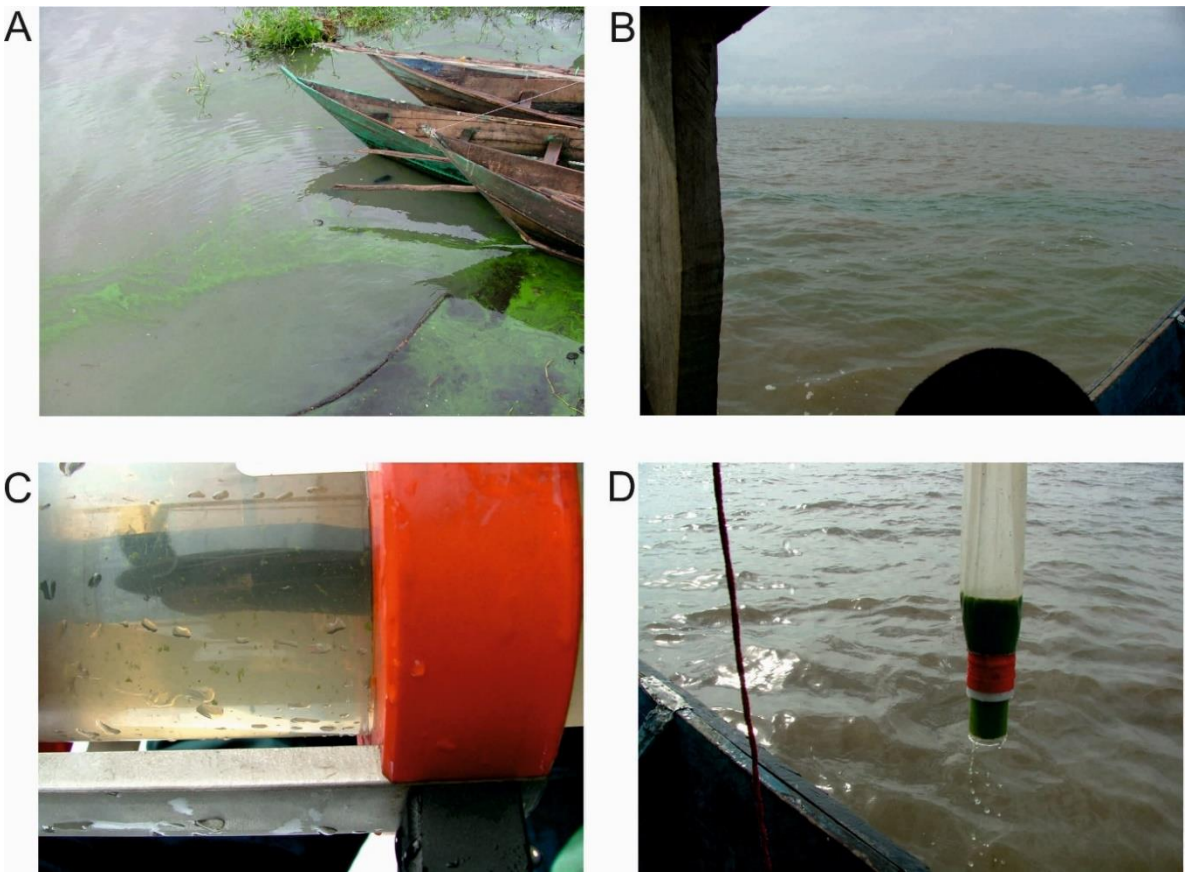

Figure S1. Sampling sites in Nyanza Gulf, L. Victoria showing cyanobacteria mass accumulation, **(A)** at the shore of the Dunga beach landing site near Kisumu, **(B)** patches formed by wind action in Kisumu Bay, **(C)** macroscopic colonies of *Microcystis* in the water sample at ST1, **(D)** phytoplankton net sample taken at ST1. The maximum MC concentrations were recorded from shore and patch samples (see Figure 2).

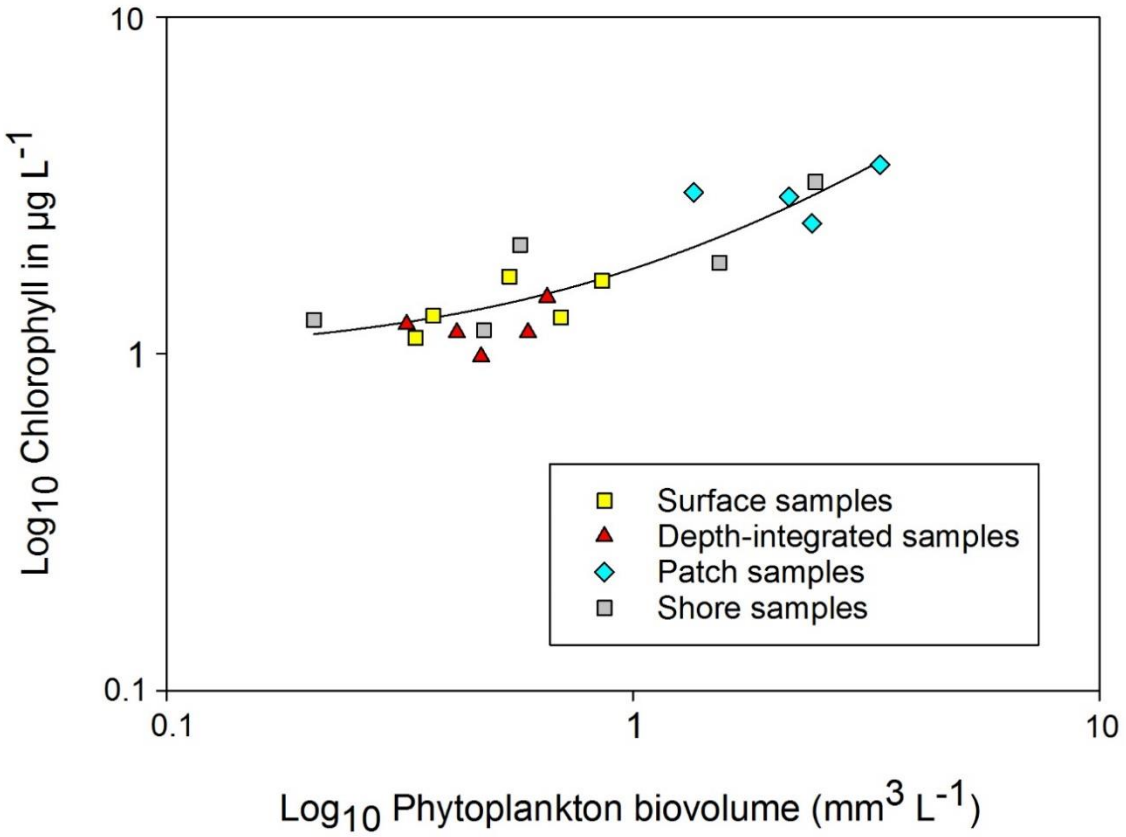

Figure S2. Relationship between total phytoplankton biovolume (mm^3 L^{-1}) and Chlorophyll *a* (µg L^{-1}) for all water samples from different sample types in Kisumu Bay, Nyanza Gulf, and Rusinga Channel, Lake Victoria: y = 0.8132x + 0.9757, where y is log_{10} of Chlorophyll a (in µg L^{-1}) and x is log_{10} of phytoplankton biovolume (in mm^3 L^{-1}), (R^2 = 0.81), (*n* = 19).

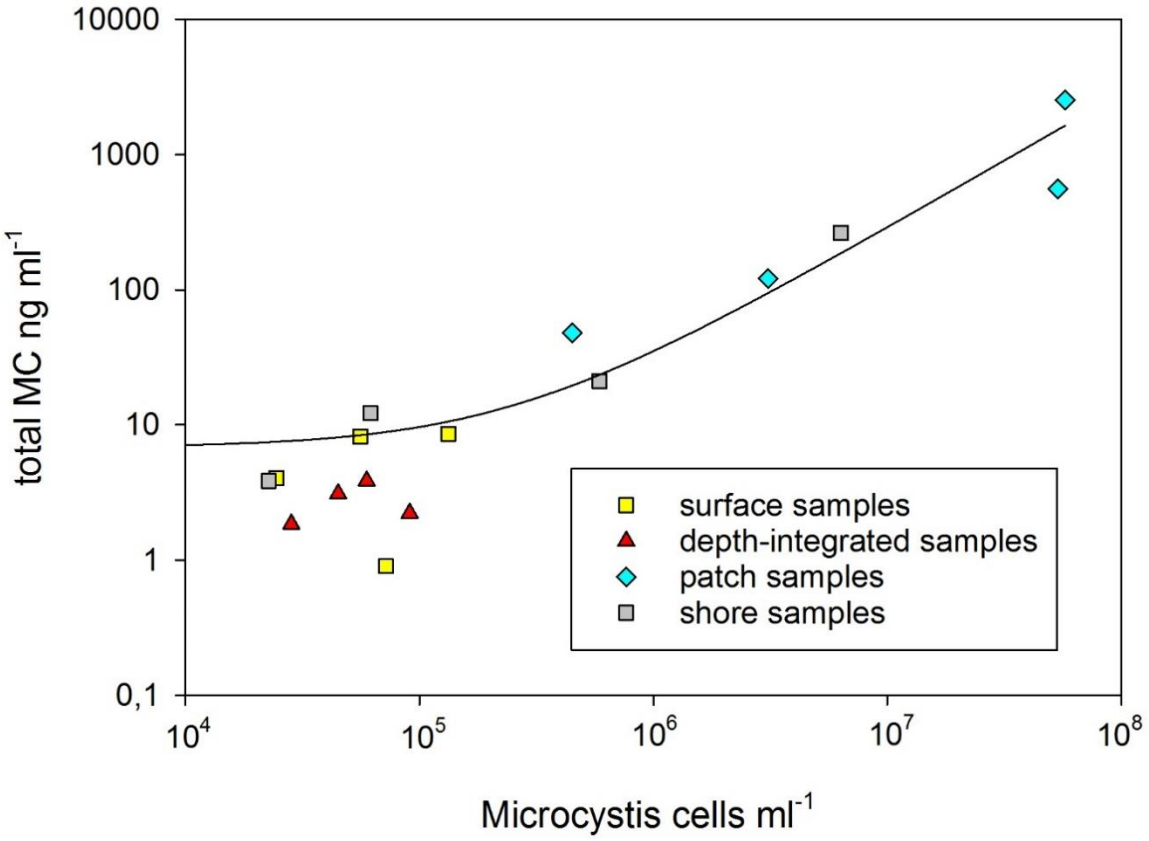

Figure S3. Relationship between *Microcystis* cell numbers and total (intracellular and dissolved) MC concentration for all water samples from different sample types in Kisumu Bay, Nyanza Gulf, and Rusinga channel, Lake Victoria: $y = 2.84 \times 10^{-5}x + 6.8044$, where y is MC in ng/ml and x is *Microcystis* cell number/ml ($R^2 = 0.71$), ($n = 19$). No MC was detected in samples from Rusinga channel.

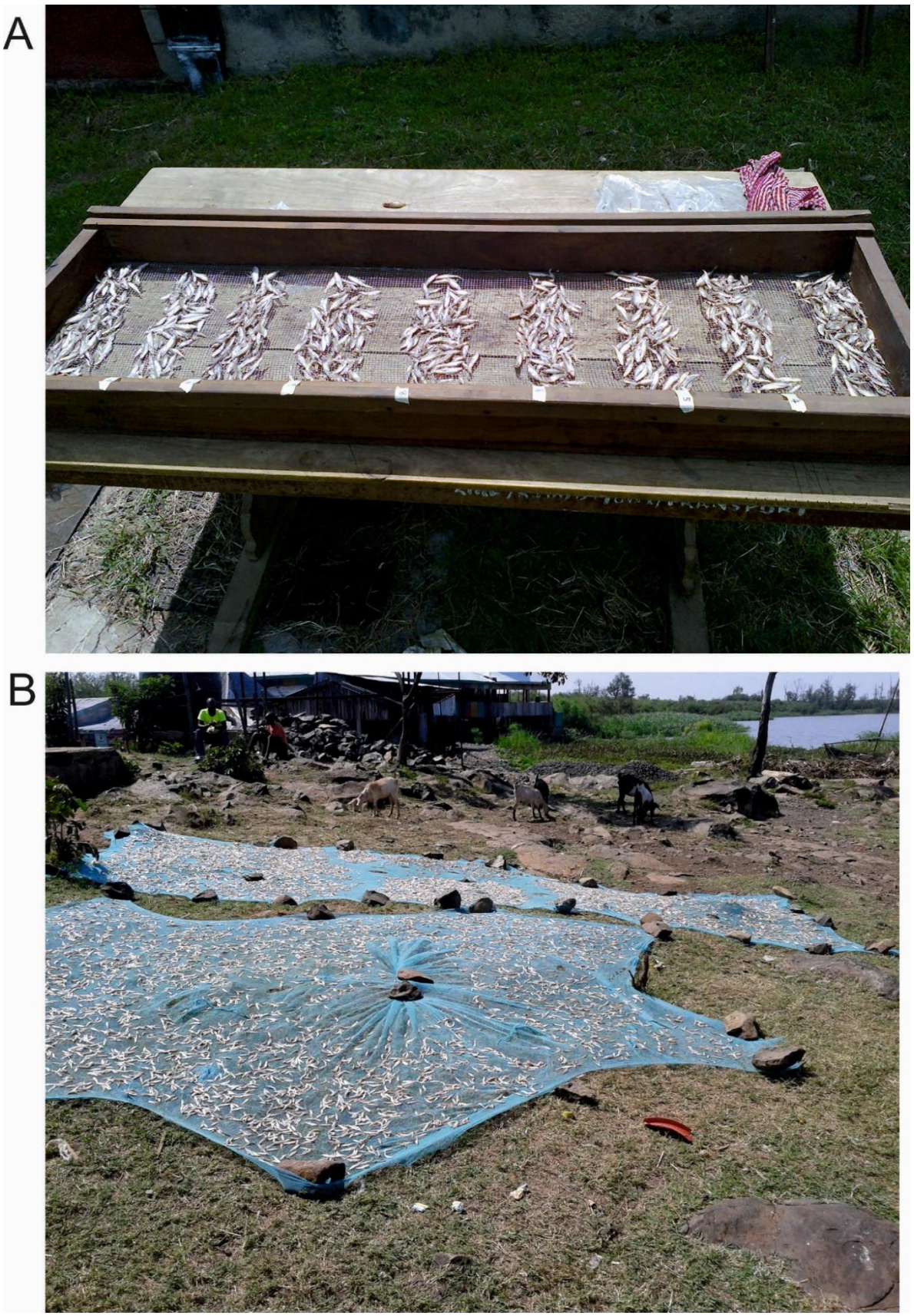

Figure S4. (A) Drying of fish samples for the experiment on microcystin stability (0-8 h), **(B)** Drying of fish for the market at the Dunga Beach landing site (Kisumu).