

## Supplementary Materials

**Table S1.** Morphological Characteristics Observed during the Identification of Cyanobacteria from Different Agro Ecological Zones

<b>Cyanobacteria (Genus)</b>	<b>Morphological characteristics used in the identification</b>
<i>Leptolyngbya</i>	Filamentous, right trichome and curved at the end, cells oblong to oblong - oval, the walls have little compression; around the cell mucilage sheath present which is very thin and hardly visible.
<i>Phormidium</i>	Filamentous, filaments with distinct sheath, each sheath with single trichome or rarely two, mucilaginous sheath, filaments not aggregated.
<i>Planktolyngbya</i>	Filamentous; filaments with thin, colorless, firm sheaths. Cells cylindrical, usually longer than wide; end cells rounded and/ or narrowed-rounded.
<i>Lyngbya</i>	Filamentous with trichome organization and distinct sheath, each sheath with single trichome, without branching. Trichomes straight or slightly waved, thick. Cells very short, always shorter than long. Heterocyst and akinetes absent.
<i>Anabaena</i>	Filamentous; without branching, heterocyst present; simple trichome without firm sheath. Heterocysts usually slightly greater than vegetative cells, free filaments. Cells cylindrical, barrel-shaped or spherical.
<i>Microcoleus</i>	Filaments composed of a gelatinous, fine, usually colorless, homogeneous distinct sheath, in which several trichomes densely packed, looks like rope- like bundle, arranged parallel and sometimes irregularly screw- like/coiled together; number of trichomes changes usually from 2-3 to more than 100 within one sheath; filaments simple.
<i>Oscillatoria</i>	Unbranched filaments (trichomes) in plankton or attached, filamentous with trichome organization, without distinct sheath, without branching, absence of heterocyst and no false branching

<i>Gleocapsa</i>	Unicellular-colonial; colonies small in a form of irregular aggregations, mucilaginous, gelatinous, usually wide and concentrically lamellated envelopes, cells situated in colonies irregularly, more or less distant one from another
<i>Microchaete</i>	Filaments solitary or in small groups, attached to or creeping on the substrate, Sheaths distinct, firm, thin or thick, sometimes slightly lamellated, usually colorless, open at the apex. Whole trichomes cylindrical or slightly attenuated towards the ends. Apical cells always rounded
<i>Chroococcidiopsis</i>	Unicellular; spherical cells, sometimes gathered in free-living irregular agglomerations or forming more or less spherical or irregular colonies. Cells or small groups of cells are enveloped by thin, firm, colorless, sometimes slightly layered sheaths (envelopes)
<i>Microcystis</i>	Unicellular - colonial; colonies gelatinous, sometimes net-like, with numerous cells without own mucilaginous envelopes, irregularly distributed within the common slime, sometimes densely agglomerated; Cells spherical or (after division) hemispherical, with homogeneous, blue-green, greyish or yellowish content
<i>Limnothrix</i>	Filamentous; filaments solitary, free floating, straight or slightly curved or irregularly screw-like coiled, without sheath or with very fine, colorless, facultative sheath.
<i>Synechococcus</i>	Unicellular; cells solitary or agglomerated in groups, without common mucilage, oval, widely oval or rod-like, sometimes curved, bent or sigmoid, rounded at the ends, with homogeneous content or with several dispersed or solitary polar granules. Thylakoids localized along cell walls. Filament-like involution cells
<i>Planktothrix</i>	Filaments solitary, more or less straight or slightly waved, free living, without sheath. Cells slightly shorter than wide; end cells widely rounded or slightly narrowed and with thickened outer cell wall or with calyptra. False branching, heterocytes and akinetes absent

<i>Aphanothece</i>	Colonial; colonies many-celled, mucilaginous, with cells irregularly, scarcely or densely arranged through the whole colony. Cells widely oval, oval ellipsoidal or rod-like, straight or slightly curved, with rounded ends. Cells with their own, fine, sometimes concentrically lamellate mucilaginous envelopes
<i>Nostoc</i>	Filamentous, forming flat gelatinous colonies. Heterocysts and akinetes present, akinetes arise apoheterocytic, oval, little larger than cells. Filaments within colony irregularly coiled and loosely or densely agglomerated, sheaths around trichomes present
<i>Pseudoanabaena</i>	Filamentous; filaments (trichomes) solitary or agglomerated in very fine, mucilaginous mats, straight or slightly waved or arcuate, simple, usually not very long, without branching, composed of cylindrical cells, without firm sheaths. Cells always longer than wide, end cell cylindrical and rounded at the end
<i>Plectonema</i>	Filamentous; filaments long, isopolar, usually waved or coiled, always with more or less thick, firm, colorless sheaths, open at the apex, obligately and frequently false-branched. Trichomes isopolar, uniseriate, composed of short cylindrical or barrel-like (discoid) cells (shorter than wide), end cells widely rounded, heterocysts and akinetes absent
<i>Calothrix</i>	Filaments heteropolar, simple, solitary in small groups, separated one from another, rarely with single, lateral false branches. Sheaths always present, usually firm, sometimes lamellated and yellow-brownish colored or funnel-shaped widened at the ends; cells cylindrical or barrel-shaped
<i>Chroococcus</i>	Unicellular - colonial; only few-celled, more or less spherical, gelatinous mats; mucilage not homogenous, each cell with define sheath; sheath is not vesicular
<i>Dermocarpa</i>	Solitary cells or groups of cells. Cells oval or club-shaped; apical end widely rounded. Around cells firm, thin sheaths present. Cell content greyish blue-green, olive green or pinkish red, finely granular, always without aerotopes

**Table S2.** Abiotic Properties of Different Freshwater Bodies in Three Climatic Zones of Sri Lanka (Values given are the mean of the triplicate samples from all reservoirs of Dry, Intermediate and Wet zone. Superscript letters in each column indicate significant differences ( $p < 0.05$ ))

<b>Climatic Zone</b>	<b>Water Temperature (°C)</b>	<b>pH</b>	<b>Secchi Depth (cm)</b>
Dry Zone	$31.35 \pm 1.50^c$	$8.20 \pm 0.68^c$	$75.09 \pm 26.31^c$
Intermediate Zone	$29.12 \pm 1.82^b$	$7.58 \pm 0.44^b$	$62.60 \pm 11.97^b$
Wet Zone	$21.37 \pm 1.27^a$	$7.41 \pm 0.24^a$	$57.00 \pm 39.69^a$