

Supplementary material

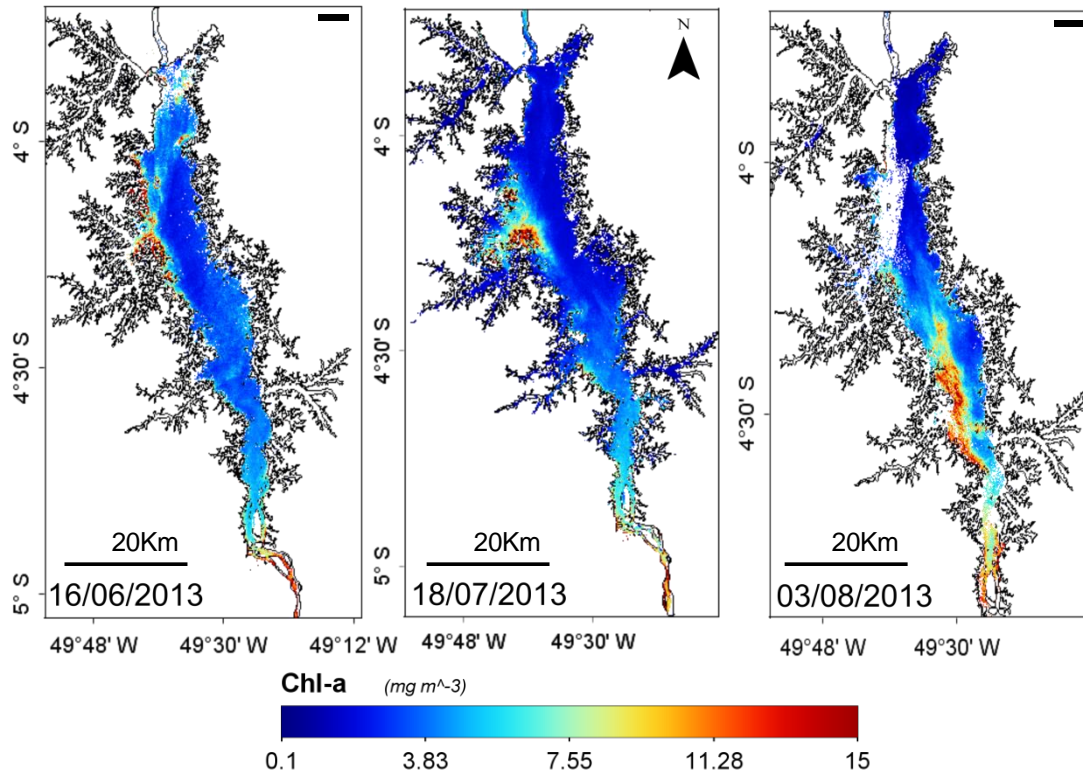


Figure S1. Maps of Chl-*a* concentration (mg m⁻³) estimated from OLI sensor using the OBPG algorithm for 16 June, 18 July and 03 August of 2013, respectively.

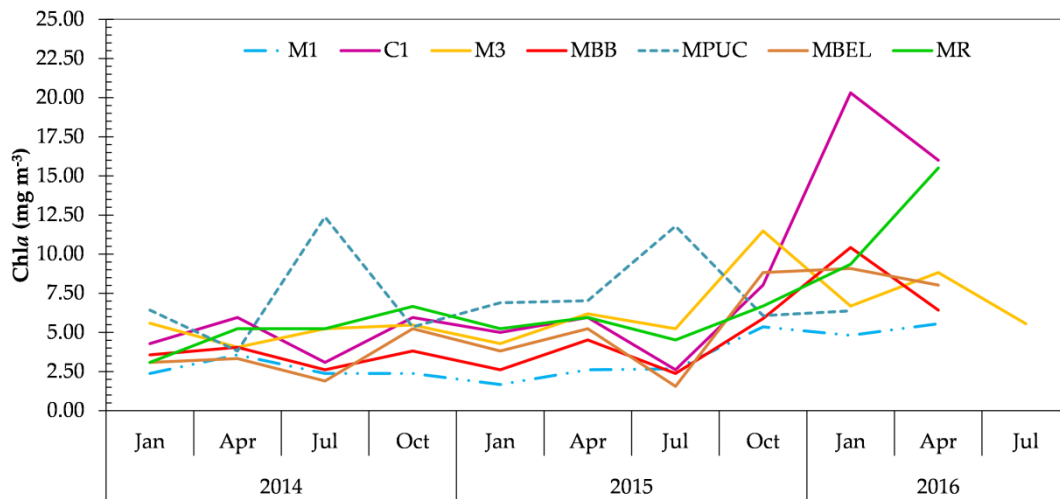


Figure S2. Time series of Chl-*a* in the Tucuruí hydroelectric reservoir from 2014 to 2016.

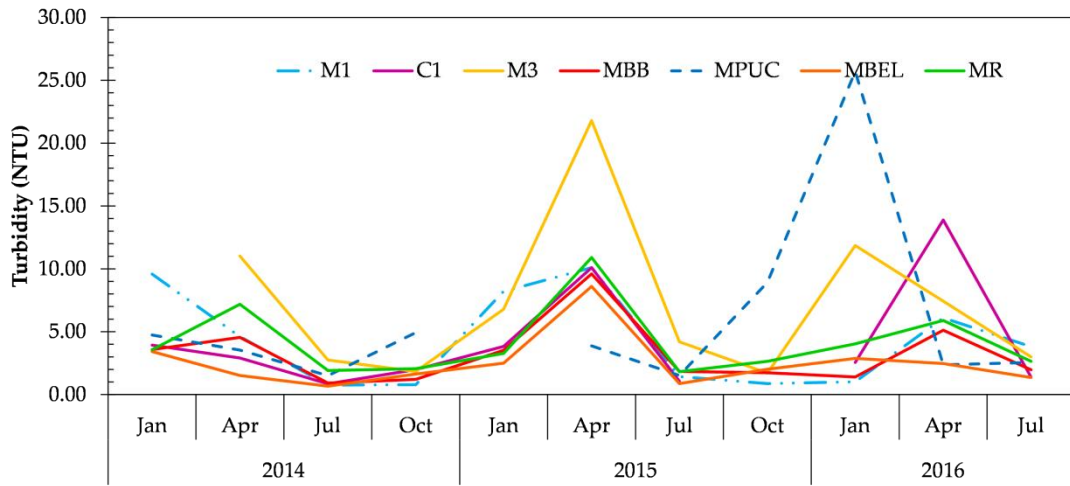


Figure S3. Time series of turbidity in the Tucuruí hydroelectric reservoir from 2014 to 2016.

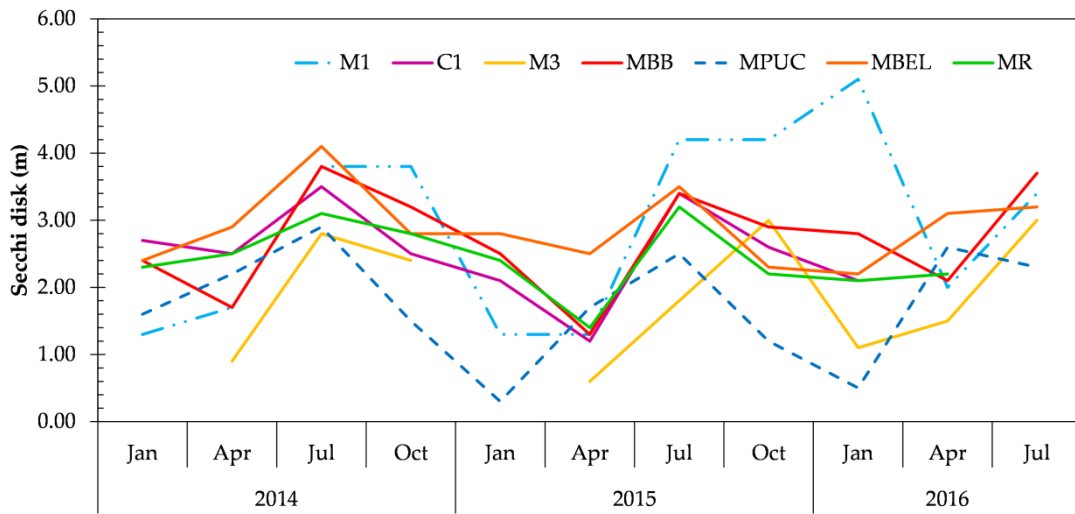


Figure S4. Time series of Secchi disk in the Tucuruí hydroelectric reservoir from 2014 to 2016.

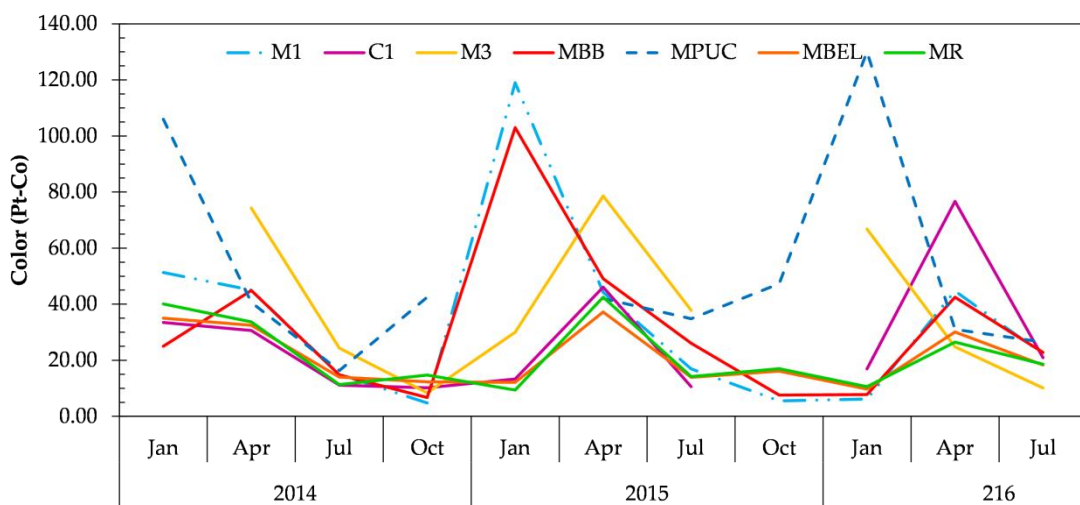


Figure S5. Time series of color in the Tucuruí hydroelectric reservoir from 2014 to 2016.

Table S1. Cyanobacteria taxa and biovolume in percentage in April 2016.

| Taxa | Biovolume (%) |
|---------------------------------|----------------------|
| <i>Anabaena circinalis</i> | 1.78 |
| <i>Aphanocapsa koordesi</i> | 0.01 |
| <i>Aphanocapsa elachista</i> | 2.85 |
| <i>Aphanocapsa hosaltica</i> | 0.01 |
| <i>Aphanizomenon gracile</i> | 1.33 |
| <i>Aphanocapsa sp.</i> | 0.11 |
| <i>Chroococcus dispersus</i> | 2.05 |
| <i>Chroococcus turgidus</i> | 1.37 |
| <i>Chroococcus minutus</i> | 12.02 |
| <i>Gloeocapsa sp.</i> | 0.06 |
| <i>Gloeocapsis rupestris</i> | 0.02 |
| <i>Jaaginema neglecta</i> | 10.03 |
| <i>Limnothrix redekei</i> | 0.35 |
| <i>Merismopedia minima</i> | 0.03 |
| <i>Merismopedia punctata</i> | 0.19 |
| <i>Microcystis aeruginosa</i> | 27.71 |
| <i>Microcystis robusta</i> | 0.02 |
| <i>Nostoc calcicola</i> | 9.07 |
| <i>Nostochopsis sp</i> | 14.21 |
| <i>Oscillatoria limosa</i> | 1.41 |
| <i>Oscillatoria refringens</i> | 1.01 |
| <i>Oscillatoria obtusa</i> | 0.26 |
| <i>Oscillatoria princeps</i> | 0.11 |
| <i>Oscillatoria sancta</i> | 0.48 |
| <i>Oscillatoria jenensis</i> | 0.67 |
| <i>Pseudoanabaena limnetica</i> | 0.03 |
| <i>Pseudoanabaena galeata</i> | 0.05 |
| <i>Plancktothrix agardhii</i> | 0.10 |
| <i>Planktolyngbya limnetica</i> | 1.17 |
| <i>Planktothrix mougeotii</i> | 0.15 |
| <i>Phormidium tergestinum</i> | 0.35 |
| <i>Rabdoderma elipsoidea</i> | 0.02 |
| <i>Raphidiopsis curvata</i> | 9.77 |
| <i>Synechocystis aquatilis</i> | 0.14 |
| <i>Synechococcus elongata</i> | 1.05 |
| <i>Snowella fennica</i> | 0.04 |
| Total | 100 |

Table S2. Cyanobacteria taxa and biovolume in percentage in July 2016.

| Taxa | Biovolume (%) |
|---|----------------------|
| <i>Anabaena circinalis</i> | 2.11 |
| <i>Anabaena flos-aquae</i> | 0.05 |
| <i>Anabaena fertilissima</i> | 0.02 |
| <i>Anabaena sp.</i> | 0.05 |
| <i>Aphanocapsa koordesi</i> | 0.82 |
| <i>Aphanocapsa biformis</i> | 0.38 |
| <i>Aphanocapsa delicatissima</i> | 0.86 |
| <i>Aphanocapsa elachista</i> | 1.98 |
| <i>Aphanocapsa hosaltica</i> | 0.01 |
| <i>Aphanocapsa montana</i> | 0.00 |
| <i>Aphanizomenon tropicalis</i> | 0.02 |
| <i>Aphanizomenon gracile</i> | 1.89 |
| <i>Aphanizomenon flos aquae</i> | 0.06 |
| <i>Aphanizomenon anabaena</i> | 1.09 |
| <i>Anabaena planktonik</i> | 0.06 |
| <i>Chroococcus dispersus</i> | 1.03 |
| <i>Chroococcus minutus</i> | 16.62 |
| <i>Chroococcus sonorensis</i> | 0.96 |
| <i>Coelomoron tropicalis</i> | 0.07 |
| <i>Cylindrospermopsis raciborskii</i> | 1.31 |
| <i>Chlorogloea microcystoides</i> | 0.00 |
| <i>Coelosphaerium kuetzingianum sp</i> | 0.01 |
| <i>Dactylococcopsis pectinatellophila</i> | 0.01 |
| <i>Dactylococcopsis raphidioides</i> | 0.02 |
| <i>Gloeocapsa sp.</i> | 0.00 |
| <i>Hydrococcus cesatii</i> | 0.01 |
| <i>Hydrococcus rivularis</i> | 0.01 |
| <i>Jaaginema neglecta</i> | 6.58 |
| <i>Limnothrix redekei</i> | 0.20 |
| <i>Merismopedia minima</i> | 1.49 |
| <i>Merismopedia tenuissima</i> | 0.02 |
| <i>Merismopedia punctata</i> | 1.62 |
| <i>Microcystis aeruginosa</i> | 7.37 |
| <i>Microcystis robusta</i> | 0.07 |
| <i>Microcystis protocistis</i> | 0.11 |
| <i>Microcystis pseudofilamentosa</i> | 0.11 |
| <i>Nostoc calcicola</i> | 0.43 |
| <i>Nostochopsis sp.</i> | 1.58 |
| <i>Oscillatoria refringens</i> | 0.20 |
| <i>Oscillatoria obtusa</i> | 0.03 |
| <i>Oscillatoria princeps</i> | 0.24 |
| <i>Oscillatoria sancta</i> | 0.31 |
| <i>Oscillatoria rubescens</i> | 0.05 |
| <i>Oscillatoria sp.</i> | 0.05 |
| <i>Oscillatoria jenensis</i> | 0.08 |
| <i>Pseudonabaena mucicola</i> | 0.93 |

| | |
|---------------------------------|------------|
| <i>Pseudoanabaena limnetica</i> | 0.09 |
| <i>Pseudoanabaena galeata</i> | 0.03 |
| <i>Pseudoanabaena catenata</i> | 0.03 |
| <i>Planktothrix agardhii</i> | 1.84 |
| <i>Planktolyngbya limnetica</i> | 9.55 |
| <i>Planktothrix mougeotii</i> | 0.68 |
| <i>Phormidium formosum</i> | 0.02 |
| <i>Rabdoderma elipsoidea</i> | 2.13 |
| <i>Raphidiopsis curvata</i> | 30.16 |
| <i>Synechocystis aquatilis</i> | 0.86 |
| <i>Synechococcus elongata</i> | 1.96 |
| <i>Snowella fennica</i> | 0.01 |
| <i>Snowella litoralis</i> | 0.04 |
| <i>Tychonema bourellyi</i> | 1.66 |
| <i>Woroninchia naegeliana</i> | 0.14 |
| Total | 100 |