ADVANCES IN OCEANOGRAPHY AND LIMNOLOGY

DOI: 10.4081/aiol.2017.6319

SUPPLEMENTARY MATERIAL

First report of cyanobacterial paralytic shellfish toxin biosynthesis genes and paralytic shellfish toxin production in Polish freshwater lakes

Henna Savela,[1*] Lisa Spoof,[2] Niina Höysniemi,[1] Markus Vehniäinen,[1] Joanna Mankiewicz-Boczek,[3] Tomasz Jurczak,[4] Mikolaj Kokociński,[5] Jussi Meriluoto[2]

[1]Biotechnology, Department of Biochemistry, University of Turku, Tykistökatu 6A, 20520 Turku, Finland
[2]Department of Biochemistry and Pharmacy, Faculty of Science and Engineering, Åbo Akademi University, Tykistökatu 6A, 20520 Turku, Finland
[3]European Regional Centre of Ecohydrology of the Polish Academy of Sciences, Tylna 3, 90-364 Łódź, Poland
[4]Department of Applied Ecology, Faculty of Biology and Environmental Protection, University of Łódź, Banacha 12/16, 90-237 Łódź, Poland
[5]Department of Hydrobiology, Faculty of Biology, Adam Mickiewicz University, Umultowska 89, 61-614 Poznań, Poland

***Corresponding author**. e-mail: henna.savela@utu.fi

To assess the specificity of the *sxtS* primers (Tab. 3), 20 cyanobacterial strains, both toxic and non-toxic (Tab. 4) were analyzed as described in the paragraph "Qualitative analysis of *sxtA*, *sxtG* and *sxtS*". Reaction outcome was determined on 1% w/v agarose gels stained with 1X (final concentration) SYBR®Safe dye (Thermo Fisher Scientific, Waltham, MA, USA). UV illumination and gel imaging was carried out using a Bio-Rad GelDoc XR system. Amplification of *sxtS* (382 bp) was observed in PST-producing *Dolichospermum circinale* strains (CS-337/01 and CS-537/13) only (Fig. S1).

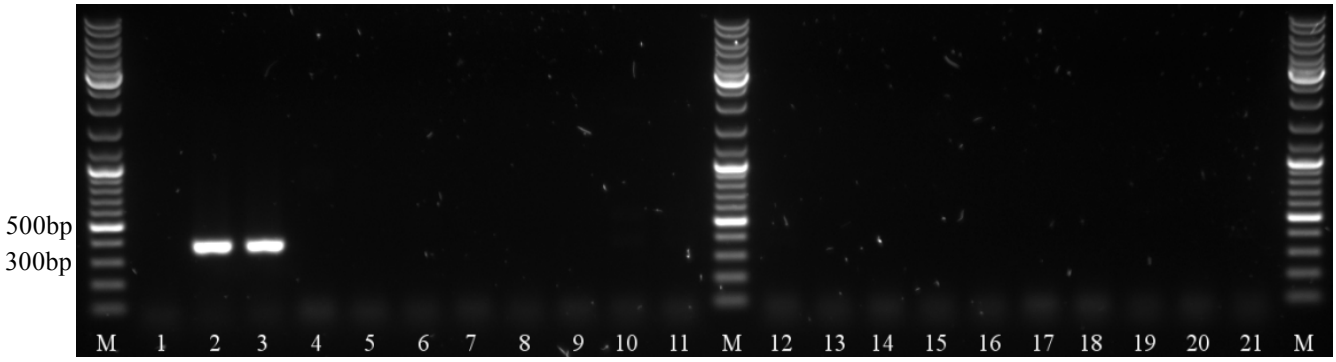

Fig. S1. From left to right. M) size marker, GeneRuler DNA Ladder Mix (Thermo Fisher Scientific, 0.4 µg per lane), 1) no template control, 2) *D. circinale* CS-337/01, 3) *D. circinale* CS-537/13, 4) *D. circinale* CS-530/05, 5) *D. circinale* CS-533/02, 6) *Anabaena cylindrica* PCC 73105, 7) *A. cylindrica* PCC 7938, 8) *Dolichospermum lemmermannii* var. *minor* NIVA-CYA 83/1, 9) *D. lemmermannii* var. *minor* NIVA-CYA 266/1, 10) *Cylindrospermopsis raciborskii* CS-505 M) size marker (as above), 11) *C. raciborskii* CS-506, 12) *C. raciborskii* CS-510, 13) *Nodularia sphaerocarpa* PCC 7804, 14) *Nostoc* sp. PCC 6310, 15) *Nostoc* sp. PCC 7422, 16) *Microcystis aeruginosa* PCC 7806, 17) *M. aeruginosa* NIVA-CYA 140, 18) *M. aeruginosa* PCC 7005, 19) *Planktothrix agardhii* NIVA-CYA 15, 20) *P. agardhii* NIVA-CYA 299, 21) *P. agardhii* NIVA-CYA 12, M) size marker (as above).