

Known And Suspected Toxigenic Cyanobacteria From Around The World

List includes taxa that have had purified toxins identified, have been implicated in toxic events in the field, or have elicited a positive response in laboratory bioassays.¹

Species	Cyanotoxin(s) Produced ²
<i>Anabaena bergii</i>	Cylindrospermopsin
<i>Anabaena circinalis</i>	Anatoxins, microcystins, saxitoxins
<i>Anabaena flos-aquae</i>	Anatoxin-a, anatoxin-a(s), microcystins
<i>Anabaena lapponica</i>	Cylindrospermopsin
<i>Anabaena lemmermannii</i>	Anatoxin-a(s), microcystins
<i>Anabaena macrospora</i>	Anatoxin-a
<i>Anabaena mendotae</i>	Anatoxin-a
<i>Anabaena planctonica</i>	Anatoxin-a, hepatotoxin
<i>Anabaena solitaria</i>	
<i>Anabaena spiroides</i> (incl. var. <i>contracta</i>)	Anatoxin-a
<i>Anabaena venenosa</i>	
<i>Anabaenopsis milleri</i>	Anatoxin
<i>Aphanizomenon flos-aquae</i>	Anatoxin, saxitoxins, cylindrospermopsin
<i>Aphanizomenon gracile</i>	Saxitoxins
<i>Aphanizomenon issatschenkoi</i>	Saxitoxins, anatoxin-a
<i>Aphanizomenon klebahnii</i>	Positive mouse bioassay-Sweden
<i>Aphanizomenon ovalisporum</i>	Cylindrospermopsin
<i>Aphanizomenon skujae</i>	Positive mouse bioassay-Sweden
<i>Aphanizomenon yezoense</i>	Positive mouse bioassay-Sweden
<i>Aphanizomenon</i> sp. (Finland)	Anatoxin-a
<i>Aphanocapsa holsatica</i>	Positive mouse bioassay-Sweden
<i>Aphanocapsa incerta</i>	
<i>Arthrospira fusiformis</i>	Anatoxin-a, microcystin-YR
<i>Coelosphaerium kuetzingianum</i>	Neuro/hepato toxins; mouse bioassay
<i>Cyanobium bacillare</i>	Microcystins
<i>Cyanodictyon imperfectum</i>	Positive mouse bioassay-Sweden
<i>Cylindrospermopsis raciborskii</i>	Anatoxin-a, cylindrospermopsin, saxitoxin
<i>Cylindrospermum</i> sp. (Finland)	Neurotoxins
<i>Fischerella epiphytica</i>	Neuro/hepato toxic
<i>Geitlerinema acutissimum</i>	Dermatoxin
<i>Gloeotrichia echinulata</i>	Neuro/hepato toxins
<i>Gloeotrichia pisum</i>	
<i>Hapalosiphon fontinalis</i>	Neuro/hepato toxic
<i>Hapalosiphon hibernicus</i>	Microcystins
<i>Hormothamnion enteromorphoides</i> (marine)	Cytotoxin, hepatotoxins
<i>Limnothrix redekei</i>	Microcystins
<i>Lyngbya majuscula</i> (marine)	Debromoaplysiatoxin, lyngbyatoxin-a, neurotoxins
<i>Lyngbya wollei</i> (syn. <i>Plectonema wollei</i>)	Debromoaplysiatoxin, saxitoxins, cylindrospermopsin

Species	Cyanotoxin(s) Produced ²
<i>Microcystis aeruginosa</i>	Microcystins
<i>Microcystis botrys</i>	Microcystins
<i>Microcystis ichthyoblabe</i>	Microcystins
<i>Microcystis panniformis</i>	Microcystins
<i>Microcystis viridis</i>	Microcystins
<i>Microcystis wesenbergii</i>	Microcystins
<i>Microcystis</i> sp. (Japan)	Anatoxin-a
<i>Nodularia spumigena</i> (brackish)	Nodularin
<i>Nostoc linckia</i>	Microcystins
<i>Nostoc paludosum</i>	Microcystins
<i>Nostoc rivulare</i>	Microcystins
<i>Nostoc zetterstedtii</i>	Microcystins
<i>Nostoc</i> spp. (England, Finland)	Microcystins
<i>Oscillatoria limosa</i>	Microcystins
<i>Oscillatoria perornata</i>	Microcystins
<i>Oscillatoria</i> sp. (Scotland)	Anatoxin-a
<i>Phormidium favosum</i>	Anatoxin-a
<i>Phormidium formosum</i>	Homoanatoxin-a, microcystins
<i>Phormidium nigro-viride</i> (marine/brackish)	Debromoaplysiatoxin, oscillatoxin-a
<i>Planktothrix agardhii</i>	Microcystins, anatoxin
<i>Planktothrix isothrix</i> (syn. <i>P. mougeotii</i>)	Microcystins, anatoxin
<i>Planktothrix rubescens</i>	Microcystins
<i>Planktothrix</i> sp. (Finland)	Anatoxin-a
<i>Pseudanabaena catenata</i>	Anatoxin
<i>Radiocystis geminata</i>	Positive mouse bioassay-Sweden
<i>Raphidiopsis curvata</i>	Cylindrospermopsin
<i>Raphidiopsis mediterranea</i>	Homoanatoxin-a
<i>Schizothrix calcicola</i>	Contact dermatitis
<i>Scytonema mirabile</i>	Antimicrobial
<i>Scytonema ocellatum</i>	Scytophycin
<i>Scytonema pseudohofmannii</i>	Scytophycin
<i>Snowella lacustris</i>	Hepatotoxins; mouse bioassay
<i>Snowella</i> sp.	Positive mouse bioassay-Sweden
<i>Synechococcus</i> sp. (marine species)	Hemolysins
<i>Synechocystis</i> sp.	Anatoxin-c
<i>Synechocystis</i> sp.	Microcystins
<i>Tolypothrix byssoidea</i>	Cytotoxin
<i>Trichodesmium erythraeum</i> (marine)	Microcystins, neurotoxins
<i>Trichodesmium thiebautii</i> (marine)	Microcystins, neurotoxins
<i>Trichormus variabilis</i>	Anatoxin
<i>Umezakia natans</i>	Cylindrospermopsin
<i>Woronichina naegeliana</i>	Neuro/hepato toxins; mouse bioassay

¹Data extracted from Report of the National Rivers Authority (1990), Skulberg (In: Falconer 1993), Sivonen and Jones (In: Chorus and Bartram 1999), Cronberg, Carpenter and Carmichael (In: Hallegraeff, Anderson and Cembella 2003), Cronberg (mouse bioassays, unpublished data) and other recent reports from the literature.

²Taxa with no cyanotoxin listed were shown to be toxic or suspected to be toxic in field or lab but toxin has not been purified and analyzed.