Bank of Algae and Cyanobacteria of the Azores (BACA) public strain catalog

Ponta Delgada, Azores, Portugal

2021

Bank of Algae and Cyanobacteria of the Azores (acronym BACA)

Member of the World Federation for Culture Collections (WFCC - WDCM #1242)

Address and contacts

BACA, Bank of Algae and Cyanobacteria of the Azores
Campus Universitário de Ponta Delgada
Rua da Mãe de Deus
9500-321 Ponta Delgada
São Miguel, Açores, Portugal

BACA Website: http://cibio.uac.pt/en/baca

Contacts: vitor.mc.goncalves@uac.pt (Vítor Gonçalves, Director);
ruben.fs.luz@uac.pt (Rúben Luz, Researcher)

Acknowledgements

BACA was created under the framework of the project REBECA-Red de Excelencia en Biotecnología Azul (algas) de la Región Macaronesia (MAC/1.1a/060), followed by REBECA-CCT-Red de Excelencia en Biotecnología Azul de la Región Macaronésica, Consolidación, Certificación y Transferencia (MAC2/1.1b/269), both funded by FEDER funds through the Interreg-MAC 2014-2020 program and the Azorean Regional Government.

General Information

The Bank of Algae and Cyanobacteria of the Azores (BACA), located at the University of the Azores, Portugal, was created in 2018 under the framework of the project REBECA - Red de Excelencia en Biotecnología Azul (algas) de la Región Macaronesia (MAC/1.1a/060). Currently BACA is also member of the World Federation for Culture Collections (WFCC - WDCM #1242).

Strains deposited in BACA have been isolated since 2013, from several environments (from freshwater, marine, brackish, thermal, and terrestrial), from the nine islands of the Azores archipelago.

Currently, this culture collection contains 768 microalgae and cyanobacteria strains, of which 57 cyanobacteria strains are publicly available. Several BACA cyanobacteria strains have been studied and have shown to be phylogenetic unique (Cordeiro et al., 2020; 2021), reinforcing BACA's unique biodiversity and biotechnological potential.

Services

BACA collection offers several services to the scientific community:

- The supply of unialgal/unicyanobacterial strains deposited in the public collection of BACA.
- The identification of strains using phenotypic and genotypic-based approaches.
- The isolation of strains from environmental samples and/or from contaminated cultures.
- Consultancy (isolation, culture maintenance, identification).

Terms and Conditions

Orders

For ordering, send us a request using our email contacts. All needed information such as ordering form (Material Transfer Agreement), prices, payment information, shipment, and further strain information will be promptly answered.

When ordering strains from BACA, the receiver must accept and sign the MTA for a non-commercial transfer, agreeing that these strains are not to be sold again, transferred, offered, or borrowed. For any commercial intention the receiver must contact the country of origin of the strain and the proper authorities.

Culture supply

Each order comprises the respective strain(s) culture(s) in the corresponding culture media, in 2 x 5 ml tubes. Warranty conditions are depicted in our MTA.

Safety Issues

All present strains in BACA are of Biosafety Label 1. Nevertheless, special care should be employed, and received material should only be opened and used by trained personnel with adequate equipment. Some strains might be toxin producers. In such cases, clients will be alerted at ordering and this information will be included in the cultures label.

Deposit

Strains depositing is available at BACA, within the collection conditions, in the public collection. The deposit of strains in BACA has no charges. However, transportation and shipment costs are of the responsibility of the depositor.

Strains to be deposited in BACA should be accompanied of an MDA (Material deposit agreement) accepted by both the collection and the depositor. Strains must be according to the Convention on Biological Diversity and/or the Nagoya Protocol (depositor responsibility).

Acknowledgments

Proper citation of all BACA strains identification and acknowledgement of BACA is required for all publications.

Catalog

Taxonomy

BACA collection holds over 760 strains, of which 371 are cyanobacteria and the remaining are microalgae, mainly green algae, and diatoms. Currently, 57 cyanobacteria strains are publicly available, belonging to 22 genera. All 57 strains are characterized morphologically and ecologically, 53 are genetically characterized, with 37 16S rRNA sequences deposited in GenBank.

The identification of BACA strains are constantly being revised, taking into consideration cyanobacteria and microalgae taxonomy constant changes.

Quality Control

The majority of BACA strains are kept in a climate-controlled room with a 14:10 h light:dark photoperiod (10-40 µmol photons m^{-2} s^{-1}) at 19˚C. Thermal strains are kept in climate-controlled chamber with a 14:10 h light:dark photoperiod (30 µmol photons m^{-2} s^{-1}) at 35˚C.

BACA strains are kept in three replicates, each strain is unialgal/unicyanobacterial. Strains are maintained by subculturing from 4 to 12 weeks, depending on strains growth needs and sensibility, confirming visually its morphological traits and growth state.

Catalog description and notes

(For non-self-explanatory sections)

Classification

Strain's taxonomy followed Komárek & Anagnostidis (2005, 2008), Komárek (2013), and Komárek *et al*. (2014). Classification updates were checked trough AlgaeBase (Guiry & Guiry, 2021).

Morphometrics

All quantifiable morphological characters were measured at least 20 times.

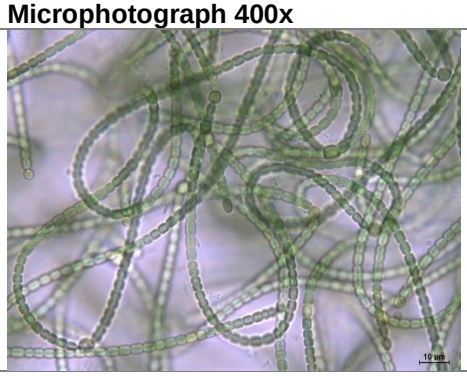
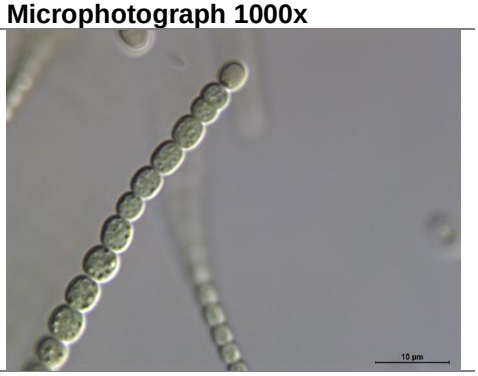
Culture media

BG-11 and BG-11_0 (Rippka, Waterbury & Stanier, 1981); Z8 (Kotai, 1972); Wharis-H (McFadden & Melkonian, 1986).

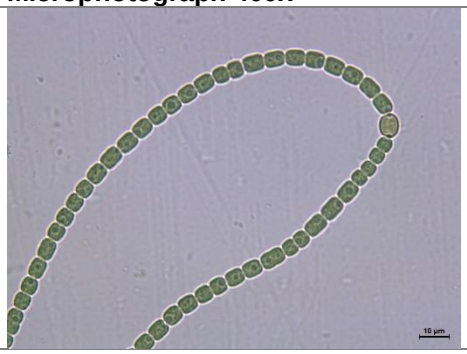
Notes

Any relevant notes on morphological, genetic, and ecological features.

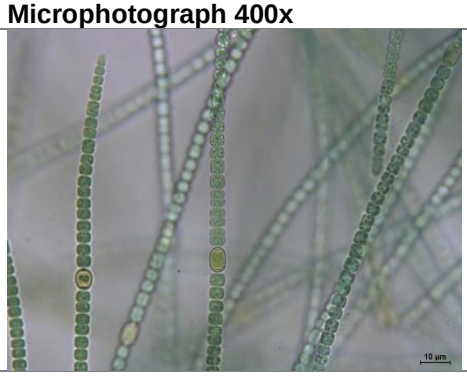
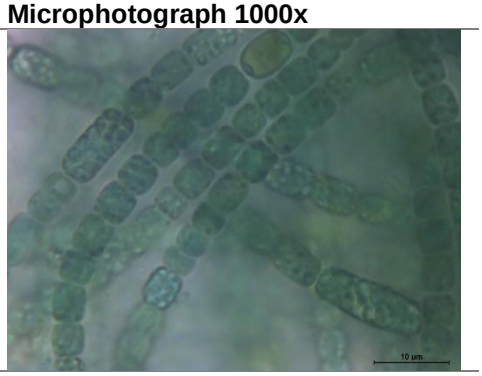
BACA0001: *Nostoc* sp.

Strain ID	**BACA0001**		
Accession Number(s) 16S	MT176684		
Strain Taxonomy	**Order**	Nostocales	
	Family	Nostocaceae	
	Genera	*Nostoc* Vaucher ex Bornet & Flahault, 1886	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.76 ± 0.79 x 3.29 ± 0.55	
	Heterocytes	4.05 ± 0.70 x 3.32 ± 0.36	
	Akynetes		
Isolation/ Sampling	**Collection Date**	01/03/2016	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa do Peixinho, Pico Island, Azores (PT)	
	Latitude & Longitude	38º26'04.0'' N 28º10'23.4'' W	
Strain Status	**Medium**	BG-11_0	
	Preservation type	subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

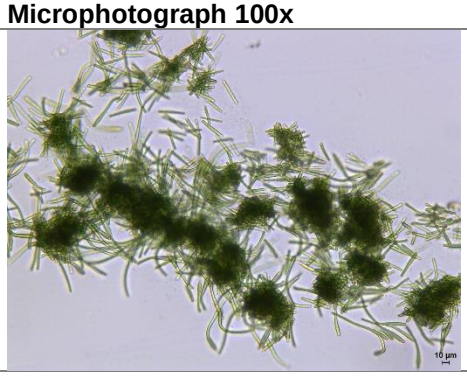
BACA0002: *Nostoc* sp.

Strain ID	***Nostoc* sp. BACA0002**		
Accession Number(s) 16S	MT176685		
Strain Taxonomy	**Order**	Nostocales	
	Family	Nostocaceae	
	Genera	*Nostoc* Vaucher ex Bornet & Flahault, 1886	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**		4.98 ± 0.88 x 4.63 ± 0.25
	Heterocytes		7.68 ± 1.45 x 6.01 ± 0.41
	Akynetes		11.96 ± 1.55 x 9.76 ± 1.13
Isolation/ Sampling	**Collection Date**		19/02/2016
	Isolation Date		
	Isolator		Rúben Luz
	Habitat		Freshwater lake
	Location		Lagoa das Furnas, São Miguel Island, Azores (PT)
	Latitude & Longitude		37º45'30.9'' N 25º20'10.4'' W
Strain Status	**Medium**		BG-11_0
	Preservation type		subculturing
	Photoperiod (Light:dark)		14:10
	Light intensity		10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)		19 ºC
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

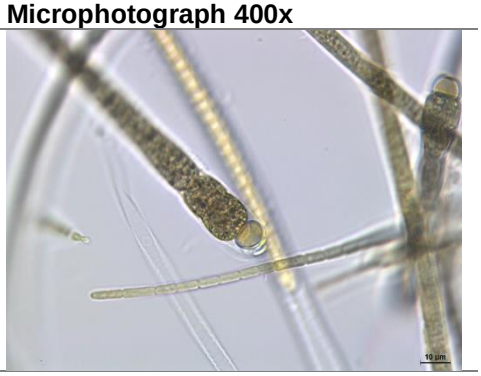
BACA0003: *Trichormus* sp.

Strain ID	***Trichormus* sp. BACA0003**		
Accession Number(s) 16S	MT176686		
Strain Taxonomy	**Order**	Nostocales	
	Family	Nostocaceae	
	Genera	*Trichormus* (Ralfs ex É.Bornet & C.Flahault) J.Komárek & K.Anagnostidis, 1989	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x** 
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.62 ± 0.77 x 4.06 ± 0.48	
	Heterocytes	7.73 1.32 x 5.41 ± 0.64	
	Akynetes	11.11 ± 1.99 x 5.11±0.25	
Isolation/ Sampling	**Collection Date**	01/03/2016	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa do Capitão, Pico Island, Azores (PT)	
	Latitude & Longitude	38º29'12.8'' N 28º19'05.7'' W	
Strain Status	**Medium**	$BG\text{-}11_0$	
	Preservation type	subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

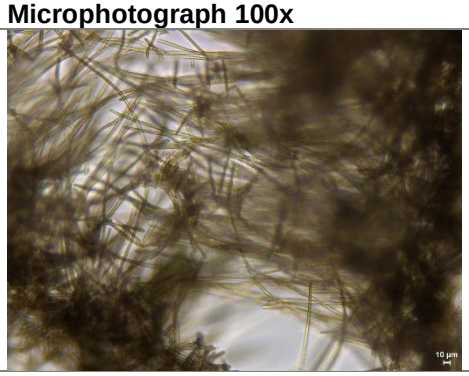
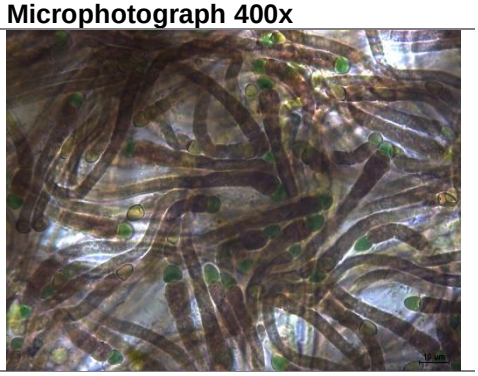
BACA0004: *Rivularia* sp.

Strain ID	***Rivularia* sp. BACA0004**	
Accession Number(s) 16S	MT176687	
Strain Taxonomy	**Order**	Nostocales
	Family	Rivulariaceae
	Genera	*Rivularia* Agardh ex Bornet & Flahault, 1886
	Species	
Pictures	**Microphotograph 100x**	**Microphotograph 400x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.58 ± 1.50 x 4.12 ± 1.12
	Heterocytes	3.90 ± 0.51 x 3.73 ± 0.43
	Akynetes	
Isolation/ Sampling	**Collection Date**	23/02/2016
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa Azul, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º52'27.5'' N 25º46'32.2'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

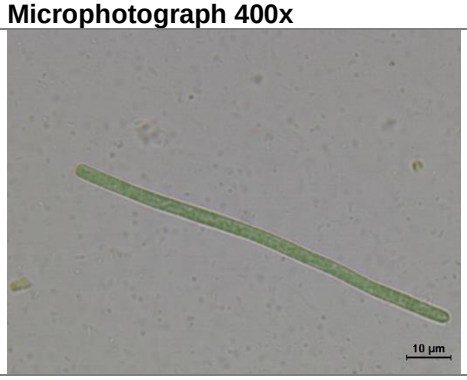
BACA0005: *Scytonematopsis* sp.

Strain ID	***Scytonematopsis* sp. BACA0005**		
Accession Number(s) 16S	MT176688		
Strain Taxonomy	**Order**	Nostocales	
	Family	Scytonemataceae	
	Genera	*Scytonematopsis* Kiseleva, 1930	
	Species		
Pictures	**Microphotograph 100x**		**Microphotograph 400x** 
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	6.20 ± 2.45 x 8.16 ± 2.93	
	Heterocytes	9.48 ± 2.11 x 10.55 ± 2.31	
	Akynetes		
Isolation/ Sampling	**Collection Date**	01/03/2016	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa do Peixinho, Pico Island, Azores (PT)	
	Latitude & Longitude	38º26'04.0'' N 28º10'23.4'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

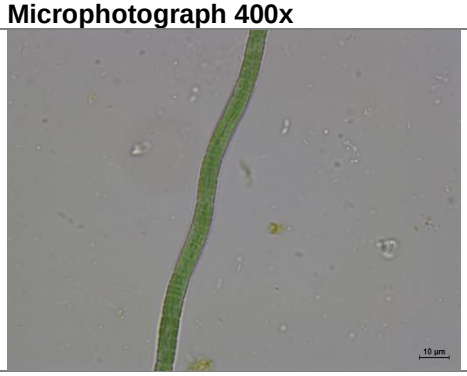
BACA0006: *Calothrix* sp.

Strain ID	***Calothrix* sp. BACA0006**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Calothricaceae
	Genera	*Calothrix* Agardh ex Bornet & Flahault, 1886
	Species	
Pictures	**Microphotograph 100x**	**Microphotograph 400x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	7.57 ± 2.25 x 4.52 ± 1.02
	Heterocytes	5.64 ± 0.76 x 4.82 ± 1.00
	Akynetes	
Isolation/ Sampling	**Collection Date**	16/02/2016
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa das Empadadas Norte, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º49'32.5'' N 25º44'54.9'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

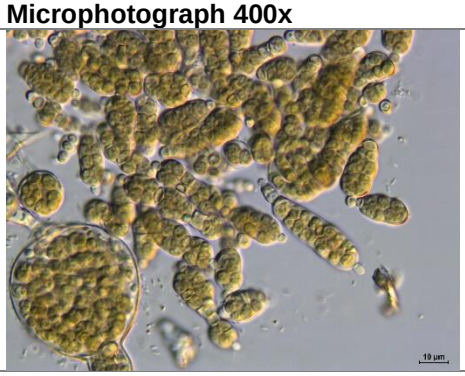
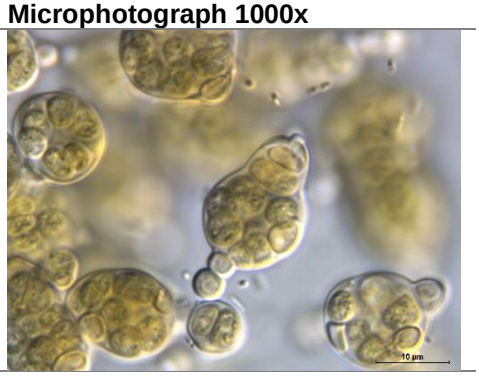
BACA0007: *Kamptonema* sp.

Strain ID	***Kamptonema* sp. BACA0007**	
Accession Number(s) 16S	MT176689	
Strain Taxonomy	**Order**	Oscillatoriales
	Family	Microcoleaceae
	Genera	*Kamptonema* O.Strunecký, J.Komárek & J.Smarda, 2014
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	2.77 ± 0.76 x 2.79 ± 0.18
	Heterocytes	
	Akynetes	
Isolation/ Sampling	**Collection Date**	01/07/2015
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa das Empadadas Sul, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º49'26.8'' N 25º44'49.9'' W
Strain Status	**Preservation type**	BG-11, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	*ana*C, *ana*F
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0008: *Arthrospira jenneri*

Strain ID	***Arthrospira jenneri* BACA0008**	
Accession Number(s) 16S	MT176689	
Strain Taxonomy	**Order**	Oscillatoriales
	Family	Microcoleaceae
	Genera	*Arthrospira*
	Species	*Arthrospira jenneri* Sitzenberger ex Gomont, 1892
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	2.72 ± 0.53 x 4.89 ± 0.36
	Heterocytes	
	Akynetes	
Isolation/ Sampling	**Collection Date**	01/07/2015
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa do Pico D'El Rei, São Miguel, Azores (PT)
	Latitude & Longitude	37º46'23.9'' N 25º23'33.4'' W
Strain Status	**Preservation type**	BG-11, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

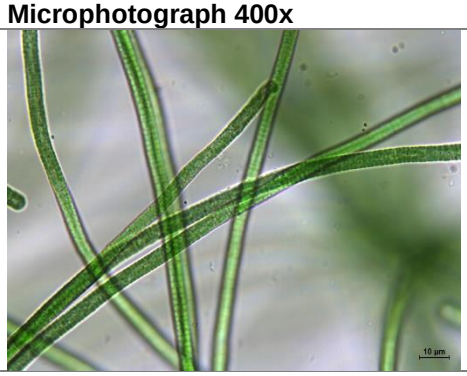
BACA0009: *Nostoc paludosum*

Strain ID	***Nostoc paludosum* BACA0009**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Nostoc*
	Species	*Nostoc paludosum* Kützing ex Bornet & Flahault, 1886
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.46 ± 0.87 x 3.46 ± 0.83
	Heterocytes	3.82 ± 0.95 x 3.87 ± 1.06
	Akynetes	
Isolation/ Sampling	**Collection Date**	23/02/2016
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa Azul, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º52'27.5'' N 25º46'32.2'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

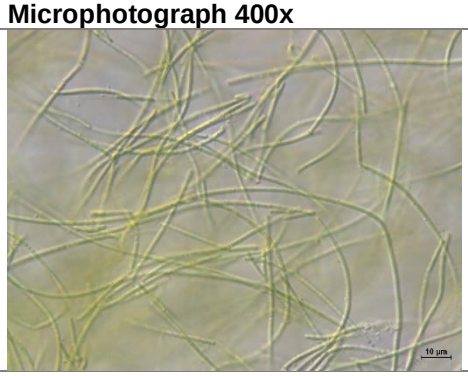
BACA0010: *Nostoc punctiforme*

Strain ID	***Nostoc punctiforme* BACA0010**	
Accession Number(s) 16S	MT176763	
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Nostoc*
	Species	*Nostoc punctiforme* Hariot, 1891
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.34 ± 0.73 x 3.49 ± 0.56
	Heterocytes	4.31 ± 0.75 x 4.27 ± 0.67
	Akynetes	
Isolation/ Sampling	**Collection Date**	18/02/2016
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa de São Brás, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º47'34.9'' N 25º24'36.6'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

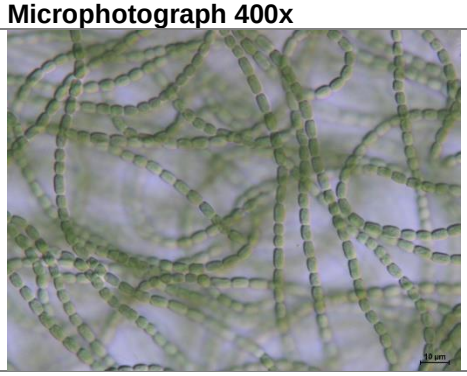
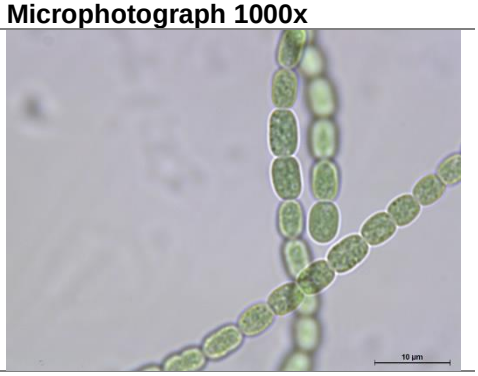
BACA0011: *Arthrospira jenneri*

Strain ID	***Arthrospira jenneri* BACA0011**	
Accession Number(s) 16S	MT176691	
Strain Taxonomy	**Order**	Oscillatoriales
	Family	Microcoleaceae
	Genera	*Arthrospira*
	Species	*Arthrospira jenneri* Sitzenberger ex Gomont, 1892
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.89 ± 1.22 x 4.12 ± 0.39
	Heterocytes	
	Akynetes	
Isolation/ Sampling	**Collection Date**	01/07/2015
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa do Areeiro, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º45'49.9'' N 25º25'37.1'' W
Strain Status	**Preservation type**	BG-11, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

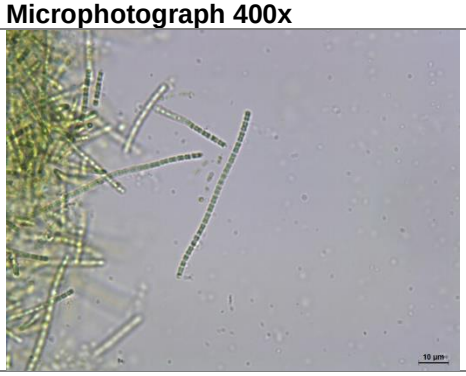
BACA0012: *Tildeniella* sp.

Strain ID	***Tildeniella* sp. BACA0012**	
Accession Number(s) 16S	MT176692	
Strain Taxonomy	**Order**	Synechococcales
	Family	Oculatellaceae
	Genera	*Tildeniella* Mai, J.R. Johansen & Pietrasiak, 2018
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	2.02 ± 0.41 x 1.45 ± 0.30
	Heterocytes	
	Akynetes	
Isolation/ Sampling	**Collection Date**	01/11/2014
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa das Furnas, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º45'30.9'' N 25º20'10.4'' W
Strain Status	**Preservation type**	BG-11, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0013: Nostocaceae

Strain ID	**Nostocaceae BACA0013**		
Accession Number(s) 16S	MT176693		
Strain Taxonomy	**Order**	Nostocales	
	Family	Nostocaceae Eichler, 1886	
	Genera		
	Species		
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**	
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.89 ± 0.68 x 3.48 ± 0.48	
	Heterocytes		
	Akynetes		
Isolation/ Sampling	**Collection Date**	01/11/2014	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa Azul, São Miguel Island, Azores (PT)	
	Latitude & Longitude	37º52'27.5'' N 25º46'32.2'' W	
Strain Status	**Preservation type**	BG-11, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

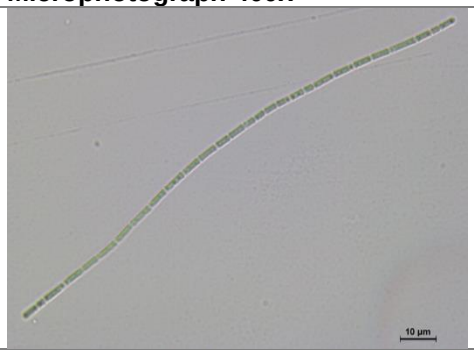
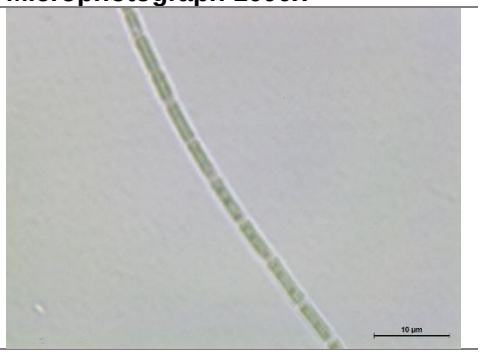
BACA0014: *Pseudanabaena minima*

Strain ID	***Pseudanabaena minima* BACA0014**	
Accession Number(s) 16S	MT176694	
Strain Taxonomy	**Order**	Synechococcales
	Family	Pseudanabaenaceae
	Genera	*Pseudanabaena*
	Species	*Pseudanabaena minima* Anagnostidis 2001
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.71 ± 1.19 x 1.86 ± 0.16
	Heterocytes	
	Akynetes	
Isolation/ Sampling	**Collection Date**	01/17/2015
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa Rasa da Serra Devassa, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º49'28.3'' N 25º45'05.9'' W
Strain Status	**Preservation type**	Wharis-H, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0015: *Pseudanabaena* sp.

Strain ID	***Pseudanabaena* sp. BACA0015**	
Accession Number(s) 16S	MT176695	
Strain Taxonomy	**Order**	Synechococcales
	Family	Pseudanabaenaceae
	Genera	*Pseudanabaena* Lauterborn, 1915
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.93 ± 1.25 x 1.57 ± 0.21
	Heterocytes	
	Akynetes	
Isolation/ Sampling	**Collection Date**	01/17/2015
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa do Areeiro, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º45'49.9'' N 25º25'37.1'' W
Strain Status	**Preservation type**	BG-11, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

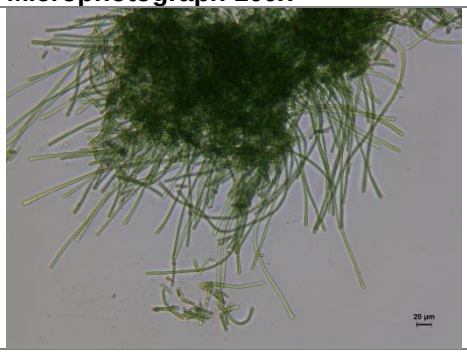
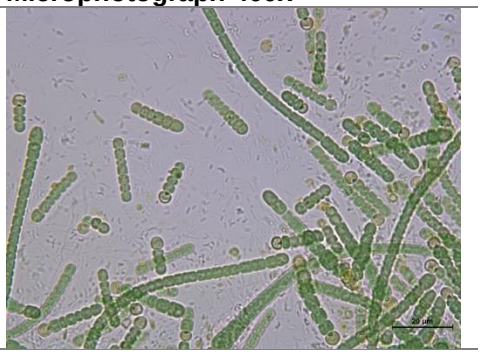
BACA0016: *Pseudanabaena limnetica*

Strain ID	***Pseudanabaena limnetica* BACA0016**		
Accession Number(s) 16S	MT176696		
Strain Taxonomy	**Order**	Synechococcales	
	Family	Pseudanabaenaceae	
	Genera	*Pseudanabaena*	
	Species	*Pseudanabaena limnetica* (Lemmermann) Komárek 1974	
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**		5.32 ± 1.27 x 1.79 ± 0.20
	Heterocytes		
	Akynetes		
Isolation/ Sampling	**Collection Date**		19/10/2015
	Isolation Date		
	Isolator		Rúben Luz
	Habitat		Freshwater lake
	Location		Lagoa do Caiado, Pico Island, Azores (PT)
	Latitude & Longitude		38º27'24.4'' N 28º14'57.1'' W
Strain Status	**Preservation type**		Wharis-H, subculturing
	Photoperiod (Light:dark)		14:10
	Light intensity		10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)		19 ºC
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

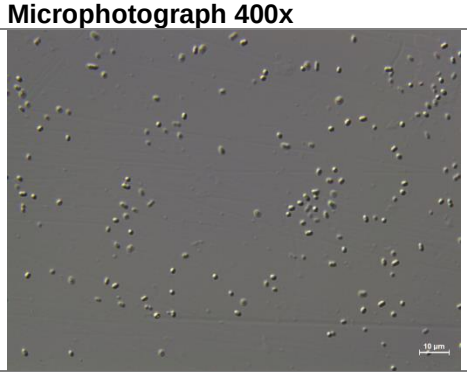
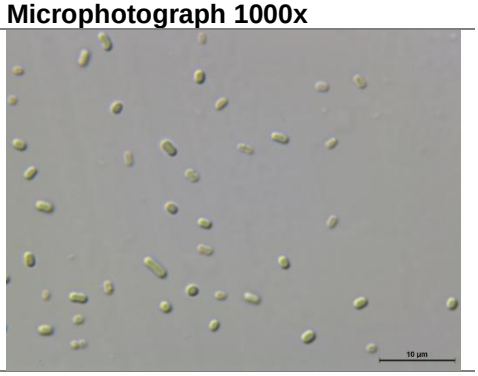
BACA0017: *Microchaete tenera*

Strain ID	***Microchaete tenera* BACA0017**		
Accession Number(s) 16S	MT176697		
Strain Taxonomy	**Order**	Nostocales	
	Family	Rivulariaceae	
	Genera	*Microchaete*	
	Species	*Microchaete tenera* Thuret ex Bornet & Flahault, 1886	
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	6.39 ± 0.97 x 6.28 ± 0.88	
	Heterocytes	7.72 ± 1.93 x 7.23 ± 1.08	
	Akynetes		
Isolation/ Sampling	**Collection Date**	19/07/2016	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa Rosada, Pico Island, Azores (PT)	
	Latitude & Longitude	38º26'00.1'' N 28º11'07.5'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

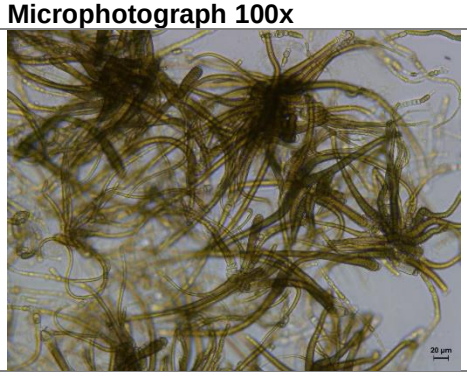
BACA0018: *Coleospermum* sp.

Strain ID	***Coleospermum* sp. BACA0018**		
Accession Number(s) 16S			
Strain Taxonomy	**Order**	Nostocales	
	Family	Microchaetaceae	
	Genera	*Coleospermum* Kirchner ex Frank, 1886	
	Species		
Pictures	**Microphotograph 100x**		**Microphotograph 400x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.07 ± 1.33 x 3.80 ± 0.57	
	Heterocytes	4.11 ± 0.81 x 4.29 ± 0.55	
	Akynetes		
Isolation/ Sampling	**Collection Date**	25/07/2016	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa Comprida, Flores Island, Azores (PT)	
	Latitude & Longitude	39º26'26.1'' N 31º13'19.0'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes	With hormogonia		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

BACA0019: *Cyanobium* sp.

Strain ID	***Cyanobium* sp. BACA0019**		
Accession Number(s) 16S			
Strain Taxonomy	**Order**	Synechococcales	
	Family	Synechococcaceae	
	Genera	*Cyanobium* Rippka & Cohen-Bazire, 1983	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	2.00 ± 0.58 x 1.20 ± 0.19	
	Heterocytes		
	Akynetes		
Isolation/ Sampling	**Collection Date**	17/05/2016	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa Azul, São Miguel Island, Azores (PT)	
	Latitude & Longitude	37º52'27.5'' N 25º46'32.2'' W	
Strain Status	**Preservation type**	BG-11, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

BACA0020: *Scytonematopsis* sp.

Strain ID	***Scytonematopsis* sp. BACA0020**		
Accession Number(s) 16S	MT176698		
Strain Taxonomy	**Order**	Nostocales	
	Family	Scytonemataceae	
	Genera	*Scytonematopsis* Kiseleva, 1930	
	Species		
Pictures	**Microphotograph 100x**		**Microphotograph 400x** 
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	**Base**	3.82 ± 0.93 x 10.56 ± 1.33
		Middle	7.83 ± 1.76 x 5.08 ± 1.33
	Heterocytes		7.76 ± 2.75 x 8.06 ± 1.50
	Akynetes		
Isolation/ Sampling	**Collection Date**		25/07/2016
	Isolation Date		
	Isolator		Rúben Luz
	Habitat		Freshwater lake
	Location		Lagoa Comprida, Flores Island, Azores (PT)
	Latitude & Longitude		39º26'26.1'' N 31º13'19.0'' W
Strain Status	**Preservation type**		BG-11$_0$, subculturing
	Photoperiod (Light:dark)		14:10
	Light intensity		10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)		19 ºC
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

BACA0021: *Coleospermum* sp.

Strain ID	***Coleospermum* sp. BACA0021**		
Accession Number(s) 16S	MT176699		
Strain Taxonomy	**Order**	Nostocales	
	Family	Microchaetaceae	
	Genera	*Coleospermum* Kirchner ex Frank, 1886	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	5.15 ± 0.87 x 4.92 ± 0.70	
	Heterocytes	5.28 ± 1.26 x 5.89 ± 0.91	
	Akynetes		
Isolation/ Sampling	**Collection Date**	20/10/2015	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa do Peixinho, Pico Island, Azores (PT)	
	Latitude & Longitude	38º26'04.0'' N 28º10'23.4'' W	
Strain Status	**Preservation type**	BG-11$_0$, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

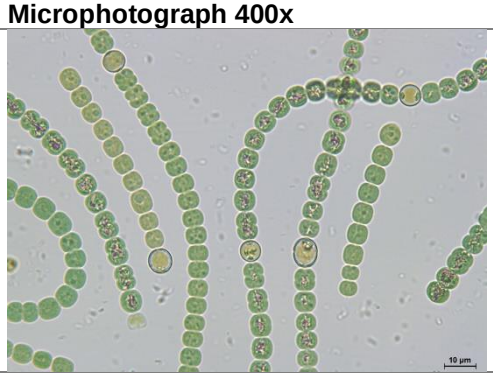
BACA0022: *Fortiea* sp.

Strain ID	***Fortiea* sp. BACA0022**		
Accession Number(s) 16S	MT176700		
Strain Taxonomy	**Order**	Nostocales	
	Family	Microchaetaceae	
	Genera	*Fortiea* De Toni, 1936	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	5.37 ± 1.25 x 4.89 ± 0.46	
	Heterocytes	7.67 ± 1.18 x 6.52 ± 0.64	
	Akynetes		
Isolation/ Sampling	**Collection Date**	20/07/2016	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa do Paul, Pico Island, Azores (PT)	
	Latitude & Longitude	38º25'43.7'' N 28º13'56.2'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

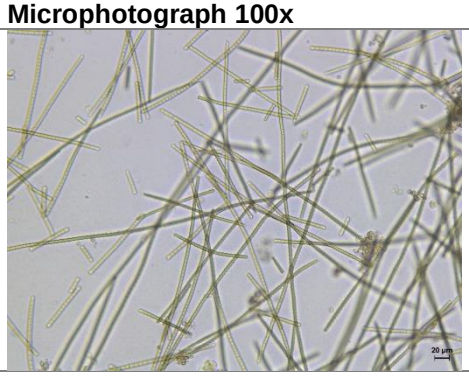
BACA0023: *Nostoc commune*

Strain ID	***Nostoc commune* BACA0023**	
Accession Number(s) 16S	MT176701	
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Nostoc*
	Species	*Nostoc commune* Vaucher ex Bornet & Flahault, 1888
Pictures	**Microphotograph 100x**	**Microphotograph 400x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.88 ± 0.53 x 3.95 ± 0.24
	Heterocytes	6.43 ± 0.84 x 5.67 ± 0.50
	Akynetes	
Isolation/ Sampling	**Collection Date**	20/10/2015
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa do Peixinho, Pico Island, Azores (PT)
	Latitude & Longitude	38º26'04.0'' N 28º10'23.4'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

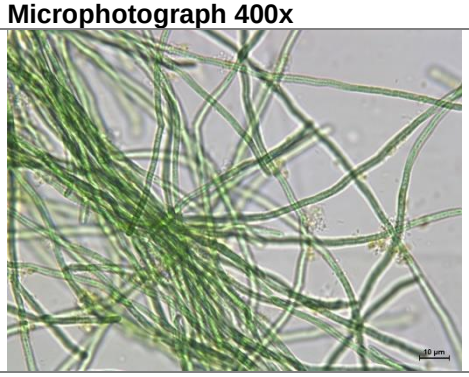
BACA0025: *Sphaerospermopsis* sp.

Strain ID	***Sphaerospermopsis sp.* BACA0025**	
Accession Number(s) 16S	MT176703	
Strain Taxonomy	**Order**	Nostocales
	Family	Aphanizomenonaceae
	Genera	*Sphaerospermopsis* Zapomelová, Jezberová, Hrouzek, Hisem, Reháková & Komárková, 2010
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	7.24 ± 1.21 x 6.31 ± 0.99
	Heterocytes	7.16 ± 0.94 x 6.83 ± 0.55
	Akynetes	
Isolation/ Sampling	**Collection Date**	19/07/2016
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa Rosada, Pico Island, Azores (PT)
	Latitude & Longitude	38°26'00.1"N 28°11'07.5"W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	Cylindrospermopsin (CYN)
	Biosynthesis encoding genes	*cyr*B, *cyr*C
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

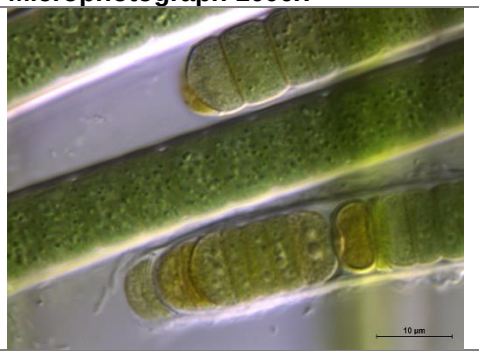
BACA0026: *Nostoc punctiforme*

Strain ID	***Nostoc punctiforme* BACA0026**	
Accession Number(s) 16S	MT176704	
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Nostoc*
	Species	*Nostoc punctiforme* Hariot, 1891
Pictures	**Microphotograph 100x**	**Microphotograph 400x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.41 ± 0.62 x 3.82 ± 0.51
	Heterocytes	6.43 ± 1.05 x 5.03 ± 0.95
	Akynetes	
Isolation/ Sampling	**Collection Date**	18/02/2016
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa de São Brás, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º47'34.9'' N 25º24'36.6'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

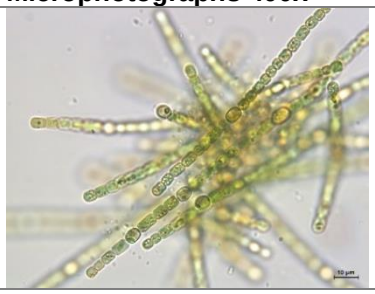
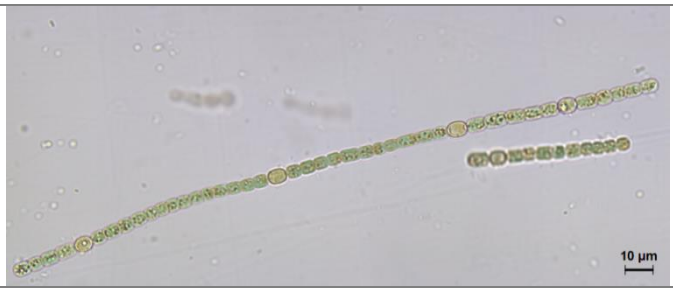
BACA0027: *Limnothrix* sp.

Strain ID	***Limnothrix* sp. BACA0027**		
Accession Number(s) 16S	MT176705		
Strain Taxonomy	**Order**	Synechococcales	
	Family	Pseudanabaenaceae	
	Genera	*Limnothrix* Meffert, 1988	
	Species		
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**	
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	2.11 ± 0.44 x 1.75 ± 0.20	
	Heterocytes		
	Akynetes		
Isolation/ Sampling	**Collection Date**	14/11/2016	
	Isolation Date		
	Isolator	Rúben Luz	
	Habitat	Freshwater lake	
	Location	Lagoa das Furnas, São Miguel Island, Azores (PT)	
	Latitude & Longitude	37º45'30.9'' N 25º20'10.4'' W	
Strain Status	**Preservation type**	BG-11, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

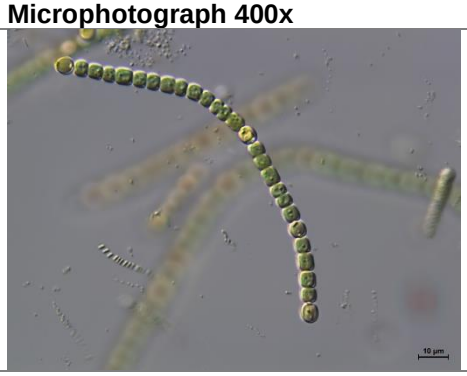
BACA0028: *Tolypothrix* sp.

Strain ID	***Tolypothrix* sp. BACA0028**	
Accession Number(s) 16S	MT176706	
Strain Taxonomy	**Order**	Nostocales
	Family	Tolypothrichaceae
	Genera	*Tolypothrix* Kützing ex Bornet & Flahault, 1886
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.88 ± 0.95 x 10.30 ± 0.62
	Heterocytes	8.89 ± 2.00 x 10.42 ± 1.18
	Akynetes	
Isolation/ Sampling	**Collection Date**	19/05/2016
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa Rasa das Sete Cidades, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º50'33.7'' N 25º46'48.0'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

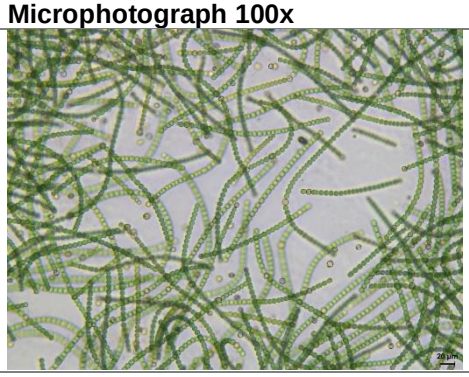
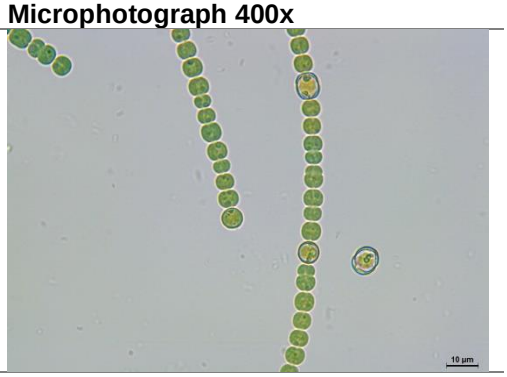
BACA0029: *Aphanizomenon* sp.

Strain ID	***Aphanizomenon* sp. BACA0029**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Aphanizomenonaceae
	Genera	*Aphanizomenon* Morren ex Bornet & Flahault, 1886 '1888'
	Species	
Pictures	**Microphotographs 400x**	
	 	
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	5.35 ± 0.83 x 4.66 ± 0.61
	Heterocytes	7.30 ± 1.12 x 5.57 ± 0.72
	Akynetes	
Isolation/ Sampling	**Collection Date**	15/05/2016
	Isolation Date	
	Isolator	Rúben Luz
	Habitat	Freshwater lake
	Location	Lagoa Azul, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º52'27.5'' N 25º46'32.2'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0030: *Dolichospermum* sp.

Strain ID	***Dolichospermum* sp. BACA0030**	
Accession Number(s) 16S	MT176707	
Strain Taxonomy	**Order**	Nostocales
	Family	Aphanizomenaceae
	Genera	*Dolichospermum* (Ralfs ex Bornet & Flahault) Wacklin, Hoffmann & Komárek, 2009
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.32 ± 1.04 x 5.01 ± 0.39
	Heterocytes	6.14 ± 0.60 x 5.45 ± 0.48
	Akynetes	
Isolation/ Sampling	**Collection Date**	06/09/2016
	Isolation Date	02/02/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa Azul, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º52'27.5'' N 25º46'32.2'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

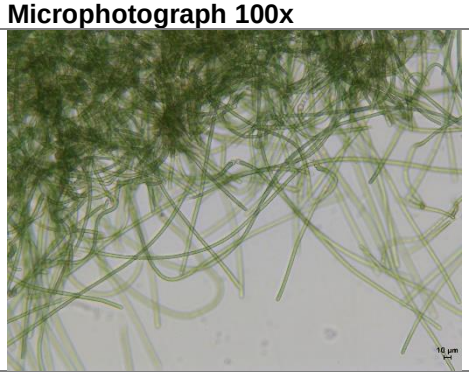
BACA0031: *Sphaerospermopsis* sp.

Strain ID	***Sphaerospermopsis* sp. BACA0031**	
Accession Number(s) 16S	MW776414	
Strain Taxonomy	**Order**	Nostocales
	Family	Aphanizomenonaceae
	Genera	*Sphaerospermopsis* Zapomelová, Jezberová, Hrouzek, Hisem, Reháková & Komárková, 2010
	Species	
Pictures	**Microphotograph 100x**	**Microphotograph 400x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	7.70 ± 2.16 x 4.62 ± 0.71
	Heterocytes	6.73 ± 1.30 x 6.44 ± 0.76
	Akynetes	
Isolation/ Sampling	**Collection Date**	20/07/2016
	Isolation Date	10/01/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa do Caiado, Pico Island, Azores (PT)
	Latitude & Longitude	38°27'24.4"N 28°14'57.1"W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	Cylindrospermopsin (CYN)
	Biosynthesis encoding genes	*cyr*B, *cyr*C
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

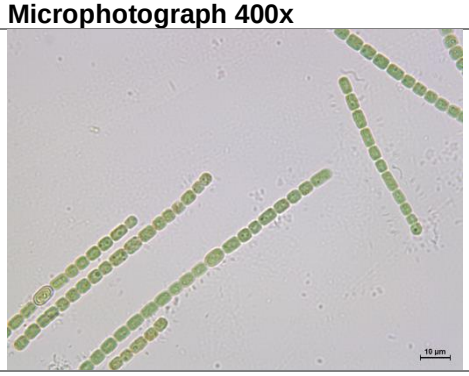
BACA0032: *Scytonematopsis* sp.

Strain ID	***Scytonematopsis* BACA0032**		
Accession Number(s) 16S			
Strain Taxonomy	**Order**	Nostocales	
	Family	Scytonemataceae	
	Genera	*Scytonematopsis* Kiseleva, 1930	
	Species		
Pictures	**Microphotograph 100x**		**Microphotograph 400x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	**Base**	4.40 ± 1.08 x 10.88 ± 2.27
		Middle	4.68 ± 0.85 x 6.08 ± 1.16
	Heterocytes		6.47 ± 1.13 x 8.15 ± 1.47
	Akynetes		
Isolation/ Sampling	**Collection Date**		01/09/2016
	Isolation Date		04/01/2017
	Isolator		Rita Cordeiro
	Habitat		Freshwater lake
	Location		Lagoa do Congro, São Miguel Island, Azores (PT)
	Latitude & Longitude		37º45'22.3'' N 25º24'29.5'' W
Strain Status	**Preservation type**		BG-11$_0$, subculturing
	Photoperiod (Light:dark)		14:10
	Light intensity		10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)		19 ºC
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

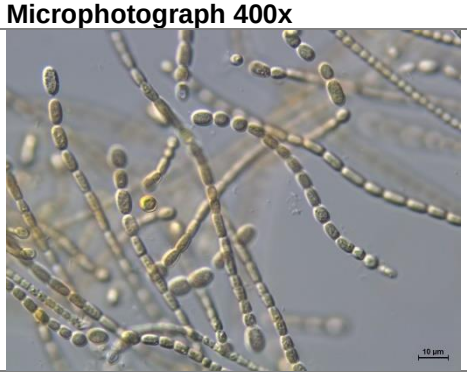
BACA0033: *Coleospermum* sp.

Strain ID	***Coleospermum* sp. BACA0033**	
Accession Number(s) 16S	MT176708	
Strain Taxonomy	**Order**	Nostocales
	Family	Microchaetaceae
	Genera	*Coleospermum* Kirchner ex Frank, 1886
	Species	
Pictures	**Microphotograph 100x**	**Microphotograph 400x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.75 ± 1.35 x 3.61 ± 0.55
	Heterocytes	4.43 ± 0.47 x 4.45 ± 0.42
	Akynetes	
Isolation/ Sampling	**Collection Date**	25/07/2016
	Isolation Date	27/01/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa Comprida, Flores Island, Azores (PT)
	Latitude & Longitude	39º26'26.1'' N 31º13'19.0'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes	With hormogonia	
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

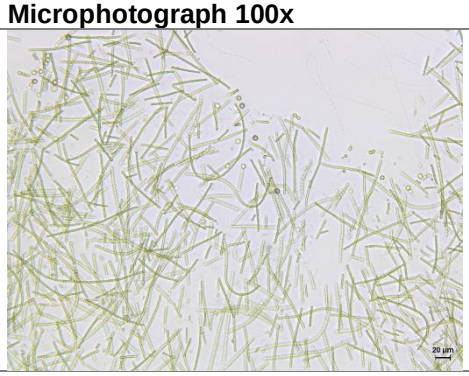
BACA0034: *Dolichospermum* sp.

Strain ID	***Dolichospermum* sp. BACA0034**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Aphanizomenaceae
	Genera	*Dolichospermum* (Ralfs ex Bornet & Flahault) Wacklin, Hoffmann & Komárek, 2009
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.77 ± 0.80 x 3.69 ± 0.35
	Heterocytes	6.14 ± 0.78 x 4.60 ± 0.48
	Akynetes	
Isolation/ Sampling	**Collection Date**	07/11/2016
	Isolation Date	02/02/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa do Fogo, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º45'53.3'' N 25º28'26.8'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

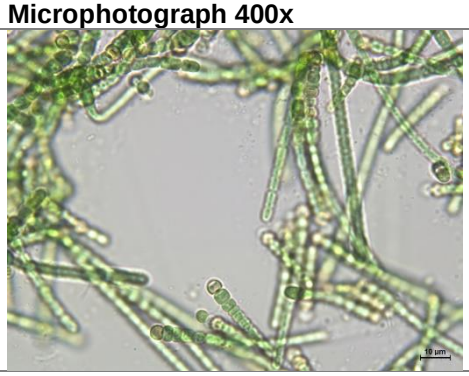
BACA0035: *Aliinostoc* sp.

Strain ID	***Aliinostoc* sp. BACA0035**	
Accession Number(s) 16S	MT176709	
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Aliinostoc* Bagchi, Dubey & Singh, 2017
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	5.31 ± 0.98 x 3.91 ± 0.66
	Heterocytes	5.67 ± 0.79 x 4.80 ± 0.64
	Akynetes	8.48 ± 1.02 x 5.42 ± 0.45
Isolation/ Sampling	**Collection Date**	02/09/2016
	Isolation Date	02/02/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa das Furnas, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º45'30.9'' N 25º20'10.4'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

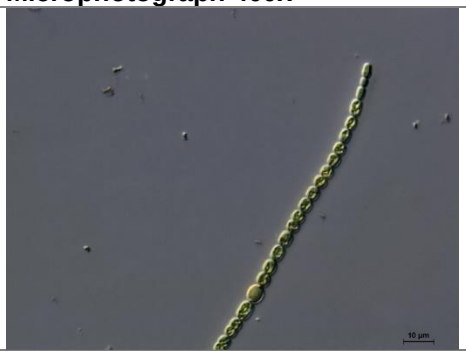
BACA0036: *Nostoc* sp.

Strain ID	***Nostoc* sp. BACA0036**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Nostoc* Vaucher ex Bornet & Flahault, 1886
	Species	
Pictures	**Microphotograph 100x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.19 ± 0.61 x 3.49 ± 0.45
	Heterocytes	4.55 ± 0.63 x 3.60 ± 0.46
	Akynetes	7.18 ± 0.77 x 5.84 ± 0.72
Isolation/ Sampling	**Collection Date**	25/07/2016
	Isolation Date	
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa da Lomba, Flores Island, Azores (PT)
	Latitude & Longitude	39º25'30.7'' N 31º11'18.9'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

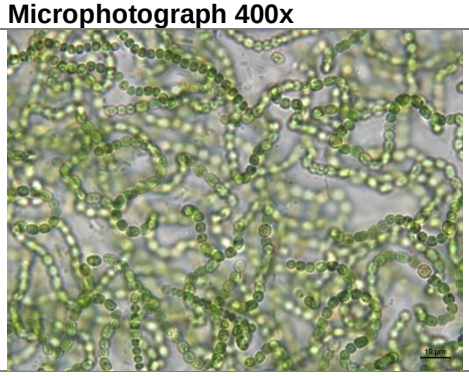
BACA0037: *Coleospermum* sp.

Strain ID	***Coleospermum* sp. BACA0037**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Microchaetaceae
	Genera	*Coleospermum* Kirchner ex Frank, 1886
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.95 ± 1.27 x 3.42 ± 0.52
	Heterocytes	4.45 ± 0.68 x 4.72 ± 0.37
	Akynetes	
Isolation/ Sampling	**Collection Date**	25/07/2016
	Isolation Date	
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa da Lomba, Flores Island, Azores (PT)
	Latitude & Longitude	39º25'30.7'' N 31º11'18.9'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

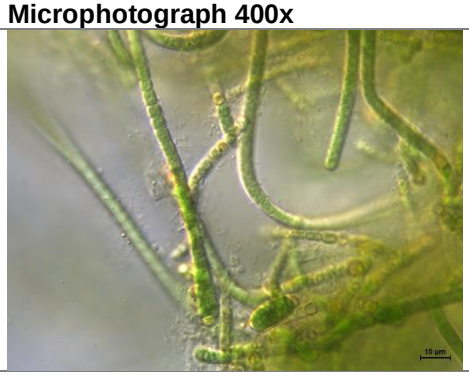
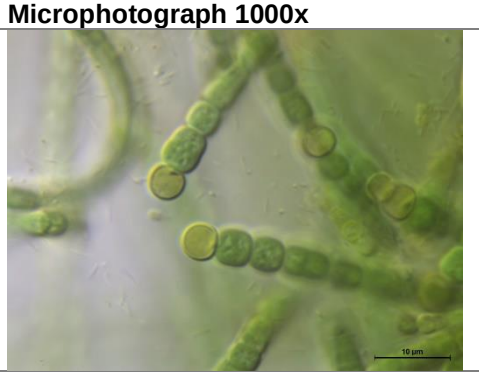
BACA0038: cf. *Isocystis planctonica*

Strain ID	**cf. *Isocystis planctonica* BACA0038**	
Accession Number(s) 16S	MT176710	
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Isocystis*
	Species	*Isocystis planctonica* Starmach, 1962
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.29 ± 0.66 x 3.34 ± 0.39
	Heterocytes	
	Akynetes	6.01 ± 0.69 x 5.19 ± 0.67
Isolation/ Sampling	**Collection Date**	25/07/2016
	Isolation Date	
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa da Lomba, Flores Island, Azores (PT)
	Latitude & Longitude	39º25'30.7'' N 31º11'18.9'' W
Strain Status	**Preservation type**	BG-11, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0039: *Nostoc* sp.

Strain ID	***Nostoc* sp. BACA0039**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Nostoc* Vaucher ex Bornet & Flahault, 1886
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.80 ± 0.55 x 3.33 ± 0.28
	Heterocytes	3.58 ± 0.52 x 3.42 ± 0.38
	Akynetes	
Isolation/ Sampling	**Collection Date**	28/07/2016
	Isolation Date	02/02/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa Negra, Flores Island, Azores (PT)
	Latitude & Longitude	39º26'31.9'' N 31º13'33.6'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

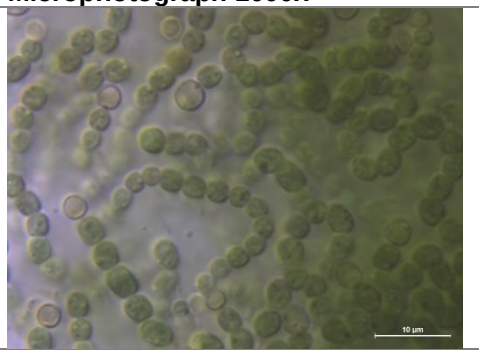
BACA0040: *Coleospermum* sp.

Strain ID	***Coleospermum* sp. BACA0040**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Microchaetaceae
	Genera	*Coleospermum* Kirchner ex Frank, 1886
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.63 ± 0.93 x 4.12 ± 0.64
	Heterocytes	4.35 ± 0.71 x 4.73 ± 0.40
	Akynetes	
Isolation/ Sampling	**Collection Date**	19/07/2016
	Isolation Date	13/03/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa do Peixinho, Pico Island, Azores (PT)
	Latitude & Longitude	38º26'04.0'' N 28º10'23.4'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

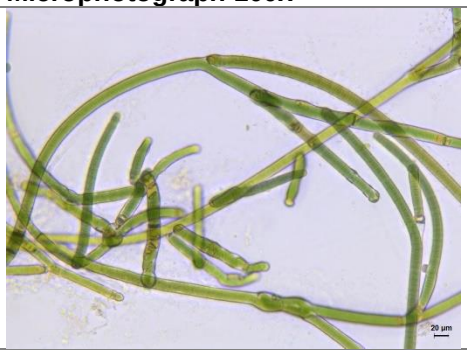
BACA0041: *Aphanizomenon gracile*

Strain ID	***Aphanizomenon gracile* BACA0041**	
Accession Number(s) 16S	MT176711	
Strain Taxonomy	**Order**	Nostocales
	Family	Aphanizomenonaceae
	Genera	*Aphanizomenon*
	Species	*Aphanizomenon gracile* Lemmermann, 1907
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	6.32 ± 1.07 x 4.07 ± 0.42
	Heterocytes	5.85 ± 0.82 x 4.69 ± 0.36
	Akynetes	
Isolation/ Sampling	**Collection Date**	31/08/2016
	Isolation Date	02/02/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa de Santiago, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º50'53.9'' N 25º46'27.4'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	Saxitoxin (STX)
	Biosynthesis encoding genes	*sxt*A, *sxt*G, *sxt*H, *sxt*I
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

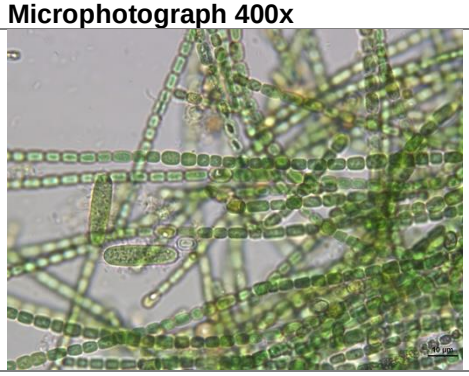
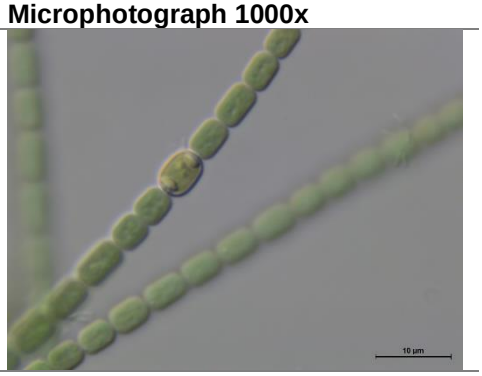
BACA0042*: Nostoc* sp.

Strain ID	***Nostoc* sp. BACA0042**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Nostoc* Vaucher ex Bornet & Flahault, 1886
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	2.99 ± 0.77 x 2.96 ± 0.28
	Heterocytes	3.43 ± 0.44 x 3.49 ± 0.47
	Akynetes	
Isolation/ Sampling	**Collection Date**	31/08/2016
	Isolation Date	13/03/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa de Santiago, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º50'53.9'' N 25º46'27.4'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0043: *Tolypothrix* sp.

Strain ID	***Tolypothrix* sp. BACA0043**	
Accession Number(s) 16S	MT176712	
Strain Taxonomy	**Order**	Nostocales
	Family	Tolypothrichaceae
	Genera	*Tolypothrix* Kützing ex Bornet & Flahault, 1886
	Species	
Pictures	**Microphotograph 100x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.48 ± 0.98 x 10.71 ± 0.98
	Heterocytes	7.34 ± 1.86 x 11.67 ± 1.32
	Akynetes	
Isolation/ Sampling	**Collection Date**	06/09/2016
	Isolation Date	09/03/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa Verde, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º50'34.4'' N 25º47'19.4'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0044: *Dolichospermum delicatulum*

Strain ID	***Dolichospermum delicatulum* BACA0044**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Aphanizomenonaceae
	Genera	*Dolichospermum*
	Species	*Dolichospermum delicatulum* Wacklin, Hoffmann & Komárek, 2009
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	5.11 ± 0.98 x 3.77 ± 0.32
	Heterocytes	7.88 ± 1.00 x 5.03 ± 0.48
	Akynetes	19.84 ± 5.29 x 6.40 ± 1.24
Isolation/ Sampling	**Collection Date**	07/11/2016
	Isolation Date	02/02/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa do Fogo, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º45'53.3'' N 25º28'26.8'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

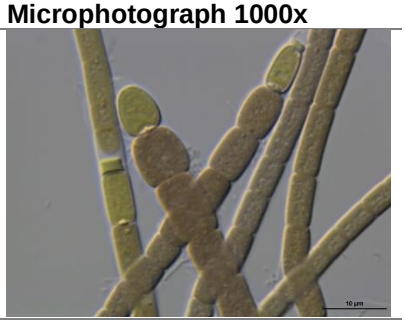
BACA0045: *Limnothrix* sp.

Strain ID	***Limnothrix* sp. BACA0045**	
Accession Number(s) 16S	MT176713	
Strain Taxonomy	**Order**	Synechococcales
	Family	Pseudanabaenaceae
	Genera	*Limnothrix* M-E. Meffert, 1988
	Species	
Pictures	**Microphotograph 100x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	2.25 ± 0.46 x 1.97 ± 0.26
	Heterocytes	
	Akynetes	
Isolation/ Sampling	**Collection Date**	02/09/2016
	Isolation Date	10/01/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa das Furnas, São Miguel Island, Azores (PT)
	Latitude & Longitude	37º45'30.9'' N 25º20'10.4'' W
Strain Status	**Preservation type**	BG-11, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

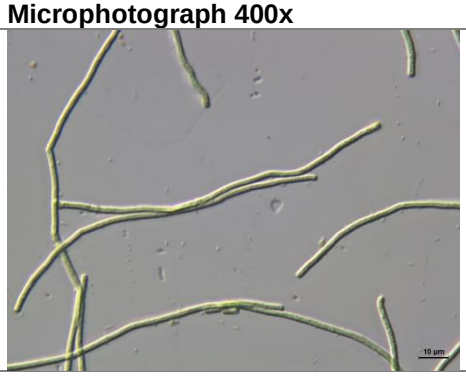
BACA0046: *Coleospermum* sp.

Strain ID	***Coleospermum* sp. BACA0046**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Microchaetaceae
	Genera	*Coleospermum* Kirchner ex Frank, 1886
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	5.48 ± 1.32 x 4.44 ± 1.23
	Heterocytes	4.74 ± 1.07 x 4.52 ± 0.48
	Akynetes	
Isolation/ Sampling	**Collection Date**	25/07/2016
	Isolation Date	10/01/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa da Lomba, Flores Island, Azores (PT)
	Latitude & Longitude	39º25'30.7'' N 31º11'18.9'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0047: *Calothrix* sp.

Strain ID	***Calothrix* sp. BACA0047**		
Accession Number(s) 16S	MT176714		
Strain Taxonomy	**Order**	Nostocales	
	Family	Calothrichaceae	
	Genera	*Calothrix* Agardh ex Bornet & Flahault, 1886	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	**Base**	7.75 ± 2.21 x 6.47 ± 1.01
		Middle	7.96 ± 2.47 x 3.78 ± 0.40
	Heterocytes		8.51 ± 2.21 x 5.51 ± 0.98
	Akynetes		
Isolation/ Sampling	**Collection Date**		26/07/2016
	Isolation Date		21/06/2017
	Isolator		Rita Cordeiro
	Habitat		Freshwater lake
	Location		Lagoa Funda, Flores Island, Azores (PT)
	Latitude & Longitude		39º24'21.9'' N 31º13'03.5'' W
Strain Status	**Preservation type**		$BG\text{-}11_0$, subculturing
	Photoperiod (Light:dark)		14:10
	Light intensity		10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)		19 ºC
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

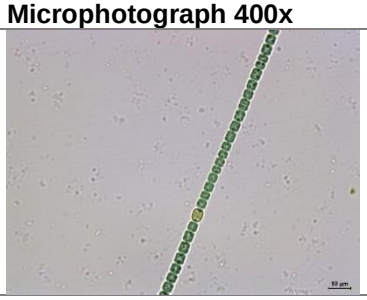
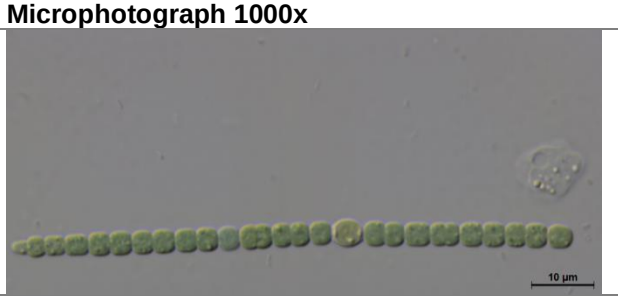
BACA0048: *Limnothrix* sp.

Strain ID	***Limnothrix* sp. BACA0048**		
Accession Number(s) 16S	MT176715		
Strain Taxonomy	**Order**	Synechococcales	
	Family	Pseudanabaenaceae	
	Genera	*Limnothrix* M-E. Meffert, 1988	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.78 ± 0.40 x 1.92 ± 0.18	
	Heterocytes		
	Akynetes		
Isolation/ Sampling	**Collection Date**	26/07/2016	
	Isolation Date	30/05/2017	
	Isolator	Rita Cordeiro	
	Habitat	Freshwater lake	
	Location	Lagoa Funda, Flores Island, Azores (PT)	
	Latitude & Longitude	39º24'21.9'' N 31º13'03.5'' W	
Strain Status	**Preservation type**	BG-11, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

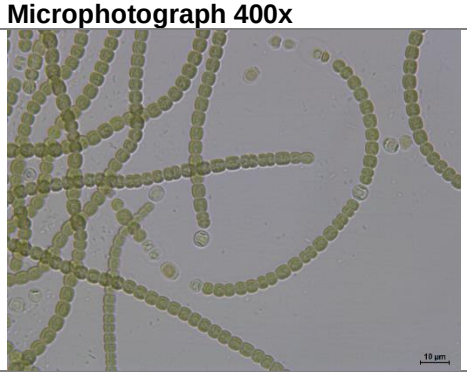
BACA0049: *Tolypothrix* sp.

Strain ID	***Tolypothrix* sp. BACA0049**		
Accession Number(s) 16S			
Strain Taxonomy	**Order**	Nostocales	
	Family	Tolypothrichaceae	
	Genera	*Tolypothrix* Kützing ex Bornet & Flahault, 1886	
	Species		
Pictures	**Microphotograph 100x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.88 ± 1.08 x 6.04 ± 0.37	
	Heterocytes	7.46 ± 1.48 x 7.37 ± 1.44	
	Akynetes		
Isolation/ Sampling	**Collection Date**	19/07/2017	
	Isolation Date	21/06/2017	
	Isolator	Rita Cordeiro	
	Habitat	Freshwater lake	
	Location	Lagoa do Capitão, Pico Island, Azores (PT)	
	Latitude & Longitude	39º29'12.8'' N 28º19'05.7'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

BACA0050: *Dolichospermum* sp.

Strain ID	***Dolichospermum* sp. BACA0050**	
Accession Number(s) 16S	MT176716	
Strain Taxonomy	**Order**	Nostocales
	Family	Aphanizomenonaceae
	Genera	*Dolichospermum* Wacklin, Hoffmann & Komárek, 2009
	Species	
Pictures	**Microphotograph 400x**	**Microphotograph 1000x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.33 ± 0.77 x 4.20 ± 0.29
	Heterocytes	5.61 ± 0.92 x 4.65 ± 0.45
	Akynetes	
Isolation/ Sampling	**Collection Date**	18/01/2017
	Isolation Date	30/05/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa Rosada, Pico Island, Azores (PT)
	Latitude & Longitude	38º26'00.1'' N 28º11'07.5'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, *12*(8), 298.	

BACA0051: *Nostoc* sp.

Strain ID	***Nostoc* sp. BACA0051**		
Accession Number(s) 16S			
Strain Taxonomy	**Order**	Nostocales	
	Family	Nostocaceae	
	Genera	*Nostoc* Vaucher ex Bornet & Flahault, 1886	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.28 ± 0.80 x 4.53 ± 0.82	
	Heterocytes	5.53 ± 0.73 x 4.99 ± 0.33	
	Akynetes		
Isolation/ Sampling	**Collection Date**	10/01/2017	
	Isolation Date	25/07/2017	
	Isolator	Rita Cordeiro	
	Habitat	Freshwater lake	
	Location	Lagoa do Caldeirão, Corvo Island, Azores (PT)	
	Latitude & Longitude	39º42'41.1'' N 31º06'49.3'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

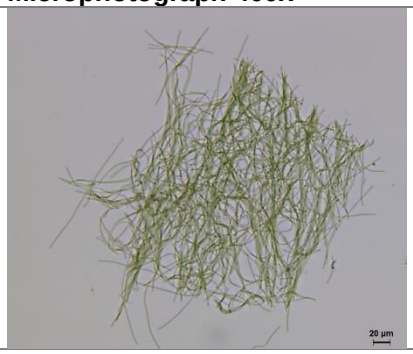
BACA0052: *Nostoc paludosum*

Strain ID	***Nostoc paludosum* BACA0052**	
Accession Number(s) 16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Nostocaceae
	Genera	*Nostoc*
	Species	*Nostoc paludosum* Kützing ex Bornet & Flahault, 1886
Pictures	**Microphotographs 400x**	
	 	
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.64 ± 0.62 x 4.30 ± 0.83
	Heterocytes	4.20 ± 0.79 x 4.58 ± 0.64
	Akynetes	
Isolation/ Sampling	**Collection Date**	10/01/2017
	Isolation Date	04/07/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa do Caldeirão, Corvo Island, Azores (PT)
	Latitude & Longitude	39º42'41.1'' N 31º06'49.3'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes	Colonies (Length × Width): 73.26 ± 11.10 x 63.99 ± 10.39 µm	
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

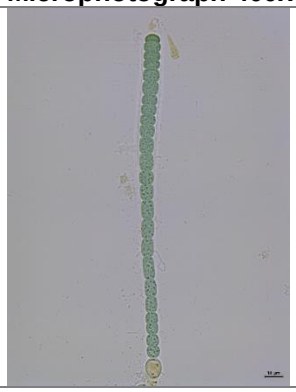
BACA0053: *Nostoc sphaericum*

Strain ID	***Nostoc sphaericum* BACA0053**		
Accession Number(s) 16S			
Strain Taxonomy	**Order**	Nostocales	
	Family	Nostocaceae	
	Genera	*Nostoc*	
	Species	*Nostoc sphaericum* Vaucher ex Bornet & Flahault, 1886	
Pictures	**Microphotographs 400x**		
	 		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.44 ± 0.63 x 3.30 ± 0.32	
	Heterocytes	5.29 ± 1.47 x 5.03 ± 1.12	
	Akynetes		
Isolation/ Sampling	**Collection Date**	10/01/2017	
	Isolation Date	28/06/2017	
	Isolator	Rita Cordeiro	
	Habitat	Freshwater lake	
	Location	Lagoa do Caldeirão, Corvo Island, Azores (PT)	
	Latitude & Longitude	39º42'41.1'' N 31º06'49.3'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes	Colonies (Length × Width): 325.42 ± 58.34 x 319.06 ± 42.79 µm		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

BACA0054: *Stenomitos* sp.

Strain ID	***Stenomitos* sp. BACA0054**		
Accession Number(s) 16S	MT176717		
Strain Taxonomy	**Order**	Synechococcales	
	Family	Leptolyngbyaceae	
	Genera	*Stenomitos* Miscoe & J.R.Johansen, 2016	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	1.28 ± 0.47 x 2.52 ± 0.55	
	Heterocytes		
	Akynetes		
Isolation/ Sampling	**Collection Date**	18/01/2017	
	Isolation Date	30/08/2017	
	Isolator	Rita Cordeiro	
	Habitat	Freshwater lake	
	Location	Lagoa do Peixinho, Pico Island, Azores (PT)	
	Latitude & Longitude	38º26'04.0'' N 28º10'23.4'' W	
Strain Status	**Preservation type**	Z8, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

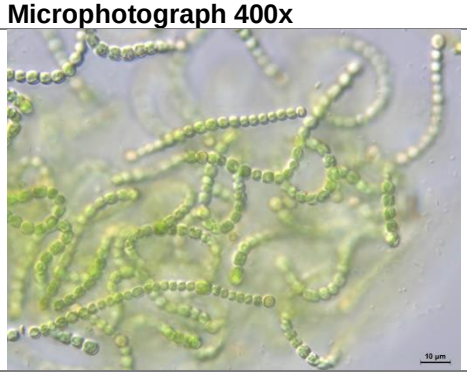
BACA0055: *Microchaete tenera*

Strain ID	***Microchaete tenera* BACA0055**		
Accession Number(s) 16S			
Strain Taxonomy	**Order**	Nostocales	
	Family	Rivulariaceae	
	Genera	*Microchaete*	
	Species	*Microchaete tenera* Thuret ex Bornet & Flahault, 1886	
Pictures	**Microphotograph 400x**		**Microphotograph 1000x**
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	9.02 ± 2.42 x 6.41 ± 1.42	
	Heterocytes	9.05 ± 1.80 x 7.80 ± 1.40	
	Akynetes		
Isolation/ Sampling	**Collection Date**	18/01/2017	
	Isolation Date	30/08/2017	
	Isolator	Rita Cordeiro	
	Habitat	Freshwater lake	
	Location	Lagoa Rosada, Pico Island, Azores (PT)	
	Latitude & Longitude	38º26'00.1'' N 28º11'07.5'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

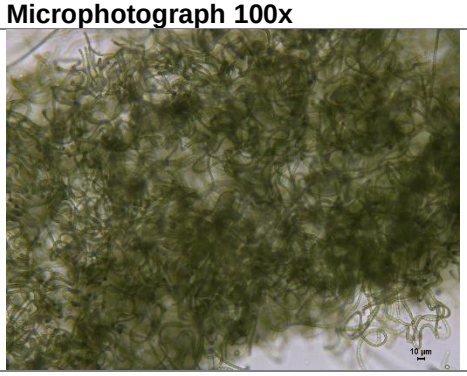
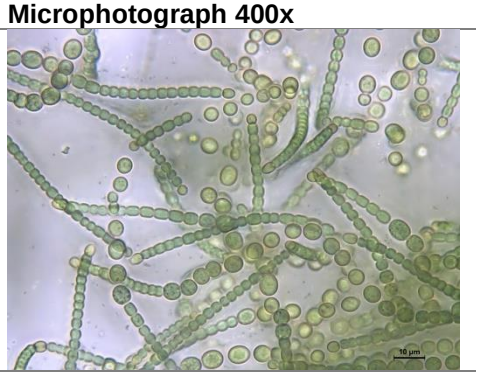
BACA0056: *Tolypothrix helicophila*

Strain ID	***Tolypothrix helicophila* BACA0056**	
Order Accession Number(s)_16S		
Strain Taxonomy	**Order**	Nostocales
	Family	Tolypothrichaceae
	Genera	*Tolypothrix*
	Species	*Tolypothrix helicophila* Lemmermann, 1910
Pictures	**Microphotograph 100x**	**Microphotograph 400x**
		
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	4.66 ± 1.33 x 6.63 ± 1.14
	Heterocytes	6.52 ± 0.86 x 6.31 ± 0.71
	Akynetes	
Isolation/ Sampling	**Collection Date**	18/01/2017
	Isolation Date	30/08/2017
	Isolator	Rita Cordeiro
	Habitat	Freshwater lake
	Location	Lagoa Rosada, Pico Island, Azores (PT)
	Latitude & Longitude	38º26'00.1'' N 28º11'07.5'' W
Strain Status	**Preservation type**	BG-11_0, subculturing
	Photoperiod (Light:dark)	14:10
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}
	Temperature (ºC)	19 ºC
Toxicity	**Toxin**	
	Biosynthesis encoding genes	
Notes		
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.	

BACA0057: *Nostoc* sp.

Strain ID	***Nostoc* sp. BACA0057**		
Order Accession Number(s)_16S	MT176718		
Strain Taxonomy	**Order**	Nostocales	
	Family	Nostocaceae	
	Genera	*Nostoc* Vaucher ex Bornet & Flahault, 1886	
	Species		
Pictures	**Microphotograph 400x**		**Microphotograph 1000x** 
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.748 ± 0.42 x 3.83 ± 0.53	
	Heterocytes	4.48 ± 1.33 x 4.95 ± 1.61	
	Akynetes		
Isolation/ Sampling	**Collection Date**	26/01/2017	
	Isolation Date	27/10/2017	
	Isolator	Rita Cordeiro	
	Habitat	Freshwater lake	
	Location	Lagoa do Canário, São Miguel Island, Azores (PT)	
	Latitude & Longitude	37º50'07.4'' N 25º45'36.7'' W	
Strain Status	**Preservation type**	BG-11$_0$, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

BACA0058: *Nostoc* sp.

Strain ID	***Nostoc* sp. BACA0058**		
Order Accession Number(s)_16S	MT176719		
Strain Taxonomy	**Order**	Nostocales	
	Family	Nostocaceae	
	Genera	*Nostoc* Vaucher ex Bornet & Flahault, 1886	
	Species		
Pictures	**Microphotograph 100x**	**Microphotograph 400x**	
			
Morphometrics (Length × Width) (µm)	**Vegetative Cells**	3.99 ± 1.00 x 3.41 ± 0.47	
	Heterocytes	4.57 ± 0.83 x 3.86 ± 0.57	
	Akynetes	6.22 ± 0.67 x 5.60 ± 0.51	
Isolation/ Sampling	**Collection Date**	13/02/2017	
	Isolation Date	10/11/2017	
	Isolator	Rita Cordeiro	
	Habitat	Freshwater lake	
	Location	Lagoa do Fogo, São Miguel Island, Azores (PT)	
	Latitude & Longitude	37º45'53.3'' N 25º28'26.8'' W	
Strain Status	**Preservation type**	BG-11_0, subculturing	
	Photoperiod (Light:dark)	14:10	
	Light intensity	10 - 40 µmol photons m^{-2} s^{-1}	
	Temperature (ºC)	19 ºC	
Toxicity	**Toxin**		
	Biosynthesis encoding genes		
Notes			
References	Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258. Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.		

References

Cordeiro, R., Azevedo, J., Luz, R., Vasconcelos, V., Gonçalves, V. & Fonseca, A. (2021). Cyanotoxin Screening in BACA Culture Collection: Identification of New Cylindrospermopsin Producing Cyanobacteria. *Toxins*, 13, 258.

Cordeiro, R., Luz, R., Vasconcelos, V., Gonçalves, V., & Fonseca, A. (2020). Cyanobacteria Phylogenetic Studies Reveal Evidence for Polyphyletic Genera from Thermal and Freshwater Habitats. *Diversity*, 12(8), 298.

Guiry, M.D., Guiry, G.M. (2020). AlgaeBase. World-Wide Electronic Publication, National University of Ireland, Galway. Available online: http://www.algaebase.org

Komárek, J.; Anagnostidis, K. (2005). Cyanoprokaryota 2. Teil/Part 2: Oscillatoriales; Spektrum Akademischer Verlag: Münche, Germany.

Komárek, J.; Anagnostidis, K. (2008). Cyanoprokaryota, Teil 1/Part 1: Chroococcales; Spektrum Akademischer Verlag: Berlin, Germany.

Komárek, J. (2013). Cyanoprokaryota 3. Teil/Part 3: Heterocytous Genera; Spektrum Akademischer Verlag: Berlin, Germany.

Komárek, J.; Kastovsky, J.; Mares, J.; Johansen, J.R. (2014). Taxonomic classification of cyanoprokaryotes (cyanobacterial genera) 2014, using a polyphasic approach. *Preslia*, 86, 295-335.

Kotai, J. (1972). Instruction for Preparation of Modified Nutrient Solution Z8 for Algae. Norwegian Institute for Water Research. Oslo.,11/69.

McFadden, G.I., Melkonian., M. (1986). Use of Hepes buffer for microalgal culture media and fixation for electron microscopy. *Phycologia*, 25(4), 551-557.

Rippka, R., Waterbury, J., Stanier, R. (1981). Isolation and Purification of Cyanobacteria: Some General Principles. In The Prokaryotes: A Handbook on Habitats, Isolation and Identification of Bacteria. Starr, M.P., Stolp, H., Trüper, H.G., Balows, A., Schlegel, H.G., Eds.; Springer: Berlin/Heidelberg, Germany.

Table of contents

General Information ____ i
Services ____ i
Terms and Conditions ____ i
Orders ____ i
Culture supply ____ ii
Safety Issues ____ ii
Deposit ____ ii
Acknowledgments ____ ii
Catalog ____ 1
Taxonomy ____ 1
Quality Control ____ 1
Catalog description and notes ____ 1
BACA0001: *Nostoc* sp. ____ 2
BACA0002: *Nostoc* sp. ____ 3
BACA0003: *Trichormus* sp. ____ 4
BACA0004: *Rivularia* sp. ____ 5
BACA0005: *Scytonematopsis* sp. ____ 6
BACA0006: *Calothrix* sp. ____ 7
BACA0007: *Kamptonema* sp. ____ 8
BACA0008: *Arthrospira jenneri* ____ 9
BACA0009: *Nostoc paludosum* ____ 10
BACA0010: *Nostoc punctiforme* ____ 11
BACA0011: *Arthrospira jenneri* ____ 12
BACA0012: *Tildeniella* sp. ____ 13
BACA0013: Nostocaceae ____ 14
BACA0014: *Pseudanabaena minima* ____ 15
BACA0015: *Pseudanabaena* sp. ____ 16
BACA0016: *Pseudanabaena limnetica* ____ 17
BACA0017: *Microchaete tenera* ____ 18
BACA0018: *Coleospermum* sp. ____ 19
BACA0019: *Cyanobium* sp. ____ 20
BACA0020: *Scytonematopsis* sp. ____ 21
BACA0021: *Coleospermum* sp. ____ 22
BACA0022: *Fortiea* sp. ____ 23
BACA0023: *Nostoc commune* ____ 24

BACA0025: *Sphaerospermopsis* sp. 25
BACA0026: *Nostoc punctiforme* 26
BACA0027: *Limnothrix* sp. 27
BACA0028: *Tolypothrix* sp. 28
BACA0029: *Aphanizomenon* sp. 29
BACA0030: *Dolichospermum* sp. 30
BACA0031: *Sphaerospermopsis* sp. 31
BACA0032: *Scytonematopsis* sp. 32
BACA0033: *Coleospermum* sp. 33
BACA0034: *Dolichospermum* sp. 34
BACA0035: *Aliinostoc* sp. 35
BACA0036: *Nostoc* sp. 36
BACA0037: *Coleospermum* sp. 37
BACA0038: cf. *Isocystis planctonica* 38
BACA0039: *Nostoc* sp. 39
BACA0040: *Coleospermum* sp. 40
BACA0041: *Aphanizomenon gracile* 41
BACA0042*: Nostoc* sp. 42
BACA0043: *Tolypothrix* sp. 43
BACA0044: *Dolichospermum delicatulum* 44
BACA0045: *Limnothrix* sp. 45
BACA0046: *Coleospermum* sp. 46
BACA0047: *Calothrix* sp. 47
BACA0048: *Limnothrix* sp. 48
BACA0049: *Tolypothrix* sp. 49
BACA0050: *Dolichospermum* sl. 50
BACA0051: *Nostoc* sp. 51
BACA0052: *Nostoc paludosum* 52
BACA0053: *Nostoc sphaericum* 53
BACA0054: *Stenomitos* sp. 54
BACA0055: *Microchaete tenera* 55
BACA0056: *Tolypothrix helicophila* 56
BACA0057: *Nostoc* sp. 57
BACA0058: *Nostoc* sp. 58
References a
Table of contents b