Validation of the genus *Desikacharya* gen. nov. (*Nostocaceae*, *Cyanobacteria*) and three included species.

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The genus designation “*Desikacharya*” Saraf & Prashant Singh (Saraf, Dawda & Singh, 2019: 7) is invalid as no type was designated. Additionally, two of the included binary designations, “*Desikacharya soli*” Saraf & Prashant Singh. and “*Desikacharya nostocoides*” Saraf & Prashant Singh were invalid as the designated types were not stated to be in a metabolically inactive state as required by Article 40.8 (Turland et al., 2018), “For the name of a new species or infraspecific taxon published on or after 1 January 2019 of which the type is a culture, the protologue must include a statement that the culture is preserved in a metabolically inactive state.” We therefore formally effect validation of these three names and effect a new combination for a valid name.

*Desikacharya* Saraf & Prashant Singh, gen. nov.
Description: Saraf, Dawda & Singh (2019: 7).
Type species: *Desikacharya nostocoides* Saraf & Prashant Singh, sp. nov., below.
Etymology: named in honour of Thamarapu Vedanta Desikachary (1919-2005) of India, who contributed enormously to our knowledge of the Cyanobacteria.

*Desikacharya nostocoides* Saraf & Prashant Singh, sp. nov. (Figs 1-4)
Description: Saraf, Dawda & Singh (2019: 7).
Holotype (here designated): portion of a culture of *Desikacharya nostocoides* preserved in metabolically inactive form in the Global Collection of Cyanobacteria, Varanasi, India and is available under the accession number GCC 20181.
Type locality: Bhanpura, Mandsaur, Madhya Pradesh, India (24.56° N 75.76° E).

*Desikacharya soli* Saraf & Prashant Singh, sp. nov. (Figs 5-8)
Description: Saraf, Dawda & Singh (2019: 7).
Holotype (here designated): portion of a culture of *Desikacharya soli* preserved in metabolically inactive form in the Global Collection of Cyanobacteria, Varanasi, India and is available under the accession number GCC 20182.
Type locality: Bhanpura, Mandsaur, Madhya Pradesh, India (24.55° N 75.79° E).

*Desikacharya thermotolerans* (Suradkar et al.) Saraf & Prashant Singh, comb. nov.


Saraf, A., Dawda, H.G., & Singh, P. (2019). *Desikacharya* gen. nov., a phylogenetically distinct genus of Cyanobacteria along with the description of two new species, *Desikacharya nostocoides* sp. nov., and *Desikacharya soli* sp. nov., and reclassification of *Nostoc thermotolerans* to *Desikacharya thermotolerans* comb. nov. *International Journal of*
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algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical
Glashütten: Koeltz Botanical Books.

Figs 1-4. Filaments of Desikacharya nostocoides, sp. nov. from culture GCC 20181. Fig. 1.
Intercalary heterocyte (a). Fig. 2. Normally barrel-shaped cells (b) with some cells being longer
than wide. Terminal heterocyte (c). Fig. 3. Slightly thin mucilaginous sheath (d). Fig. 4.
Prominently constricted cells with granular cytoplasm (e).
Figs 5-8. Filaments of *Desikacharya soli*, *sp. nov.* from culture GCC 20182. Fig. 5. Intercalary heterocyte (f). Fig. 6. Barrel-shaped cells (h) with prominent constrictions in between adjacent cells. Fig. 7. Thin mucilaginous sheath (g) covering the entire trichome. Terminal heterocyte slightly oblong in shape. Fig. 8. Filament (j) having terminal heterocytes at both ends (i).