

**Natronobiforma cellulositropha gen. nov., sp. nov., a novel haloalkaliphilic member of the family Natrialbaceae (class Halobacteria) from hypersaline alkaline lakes**

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## Corrigendum

### Corrigendum to “*Natronobiforma cellulositropha* gen. nov., sp. nov., a novel haloalkaliphilic member of the family *Natrialbaceae* (class *Halobacteria*) from hypersaline alkaline lakes” [Syst. Appl. Microbiol. 41 (2018) 355–362]

Dimitry Y. Sorokin<sup>a,b,\*</sup>, Tatiana V. Khijniak<sup>a</sup>, Nadezhda A. Kostrikina<sup>a</sup>, Alexander G. Elcheninov<sup>a</sup>, Stepan V. Toshchakov<sup>a,c</sup>, Nicole J. Bale<sup>d</sup>, Jaap S. Sinninghe Damsté<sup>d,e</sup>, Ilya V. Kublanov<sup>a,c</sup>

<sup>a</sup> Winogradsky Institute of Microbiology, Research Centre of Biotechnology, Russian Academy of Sciences, Moscow, Russia

<sup>b</sup> Department of Biotechnology, TU Delft, The Netherlands

<sup>c</sup> Immanuel Kant Baltic Federal University, Kaliningrad, Russia

<sup>d</sup> Department of Marine Microbiology and Biogeochemistry, NIOZ Netherlands Institute for Sea Research, and Utrecht University, The Netherlands

<sup>e</sup> Department of Earth Sciences – Geochemistry, Faculty of Geosciences, Utrecht University, Utrecht, The Netherlands

This is a corrigendum to the protologue [Table 3](#) describing properties of *Natronobiforma cellulositropha* gen. nov. sp. nov.

**Table 3**  
*Natronobiforma cellulositropha*: protologue.

|  |  |   |
|--|--|---|
| Parameter  | Genus: <i>Natronobiforma</i> gen. nov.   | Species: <i>Natronobiforma cellulositropha</i> sp. nov.   |
| Date created   | 2018-03-04   | 2018-03-04  |
| Taxon number (TXNR)  | TA00433  | TA00433   |
| Author (AUTE)  | Dimitry Y. Sorokin   |   |
| Species name (SPNA)  |  | <i>Natronobiforma cellulositropha</i>   |
| Genus name (GENA)  | <i>Natronobiforma</i>  |   |
| Specific epithet (SPEP)  | –  | <i>cellulositropha</i>  |
| Species status (SPST)  | –  | sp. nov.  |
| Etymology (GETY/SPTY)  | <i>Natronobiforma</i> (Na.tro.no.bi.for'ma Gr. neut. n. <i>natron</i> , arbitrarily derived from the Arabic n. <i>natrun</i> or <i>natron</i> , soda; L. adv. num. <i>bis</i> , twice; L. fem. n. <i>forma</i> , form, shape; N.L. fem. n. <i>Natronobiforma</i> , the dimorphic natronoarchaeon | <i>cellulositropha</i> (cel.lu.lo.si.tro'pha N.L. n. <i>cellulosum</i> , cellulose; N.L. fem. n. <i>trophā</i> from Gr. n. fem. <i>trophē</i> , nourishment, food; N.L. fem. adj. <i>cellulositropha</i> , utilizer of cellulose) |
| Authors (AUT)  | Dimitry Y. Sorokin, Tatiana V. Khijniak, Nadezhda A. Kostrikina, Alexander G. Elcheninov, Stepan V. Toshchakov, Nicole J. Bale, Jaap S. Sinninghe Damsté, Ilya V. Kublanov   |   |
| Title (TITL)   | <i>Natronobiforma cellulositropha</i> gen. nov., sp. nov., a novel haloalkaliphilic member of the family <i>Natrialbaceae</i> (class <i>Halobacteria</i> ) from hypersaline alkaline lakes   |   |
| Journal (JOUR)   | Systematic and Applied Microbiology  |   |
| Corresponding author (COAU)                                      | Dimitry Y. Sorokin   |   |
| E-mail of corresponding author (EMAU)                            | <a href="mailto:d.sorokin@tudelft.nl">d.sorokin@tudelft.nl</a> ; <a href="mailto:soroc@inmi.ru">soroc@inmi.ru</a>  |   |
| Designation of the type strain (TYPE)                            | –  | AArce15   |
| Strain collection numbers (COLN)                                 | –  | JCM 31939; UNIQEM U972  |
| 16S rRNA gene accession number (16 SR)                           | –  | KT247980  |
| Alternative house-keeping genes: gene [accession numbers] (HKGN) | –  | <i>rpoB'</i> [MG940906]   |

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\* Corresponding author at: Winogradsky Institute of Microbiology, Research Centre of Biotechnology, Russian Academy of Sciences, Prospect 60-let Octyabrya, 7/2, 117312, Moscow, Russia.

E-mail address: [soroc@inmi.ru](mailto:soroc@inmi.ru) (D.Y. Sorokin).

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Table 3 (Continued)

|   |   |  |
|---|---|--|
| Genome status (GSTA)                                | –   | draft  |
| GC mol% (GGCM)                                      | –   | 65.4–65.5 (genomes of AArce15 <sup>T</sup> and AArce12)  |
| Country of origin (COUN)                            | Russian Federation  |  |
| Region of origin (REGI)                             | Altai region  |  |
| Date of isolation (DATI)                            | 2013-08-15  |  |
| Source of isolation (SOUR)                          | Surface sediments and brines of hypersaline alkaline lakes                              | Surface sediments from hypersaline soda lake Tanatar-1   |
| Sampling dates (DATS)                               | 2013-07-07  |  |
| Geographic location (GEOL)                          | S-W Siberia, N-E Mongolia, California   |  |
| Latitude (LATI)                                     | 51°39'N   | 51°39'N  |
| Longitude (LONG)                                    | 79°48'E   | 79°48'E  |
| Depth (DEPT)  | 0.1 m   | 0.1 m  |
| Temperature of the sample (TEMS)                    | 25 °C   | 25 °C  |
| pH of the sample (PHSA)                             | 11.0  | 11.0   |
| Salinity of the sample (SALS)                       | 40‰   | 40‰  |
| Number of strains in study (NSTR)                   | 6   |  |
| Source of isolation of non-type strains (SAMP)      | Hypersaline alkaline lakes in Russia, Mongolia and California                           |  |
| Growth medium, incubation conditions (CULT)         | Alkaline medium containing 4 M Na <sup>+</sup> with pH 9–9.5 and cellulose as substrate | 4 M total Na <sup>+</sup> , equal mix of sodium carbonate and NaCl on the basis of Na molarity, pH 9.5; incubation – 37 °C; amorphous cellulose or cellobiose as C and energy source |
| Conditions of preservation (PRES)                   | Deep freezing in 15% glycerol (v/v)   |  |
| Gram stain (GRAM)                                   | Negative  |  |
| Cell shape (CSHA)                                   | Pleomorphic, from flat motile rods to nonmotile coccoid cells                           |  |
| Cell size (CSZI)                                    |   | 0.5–0.8 μm in diameter, length is variable   |
| Motility (MOTY)                                     | –   | Motile   |
| Motility type (MOTK)                                | –   | Flagellar  |
| Type of flagellation (TFLA)                         | –   | Variable, from single subpolar to several peritrichous flagella  |
| Sporulation (SPOR)                                  | None  |  |
| Colony morphology (COLM)                            | –   | Pink, up to 2 mm   |
| Temperature range for growth (TEMR)                 | –   | 20–53 °C   |
| Lowest temperature for growth (TEML)                | –   | 20   |
| Highest temperature for growth (TEMH)               | –   | 53   |
| Optimal temperature for growth (TEMO)               | –   | 43   |
| Lowest pH for growth (PHLO)                         | –   | 7.5  |
| Highest pH for growth (PHHI)                        | –   | 9.9  |
| Optimum pH for growth (PHOP)                        | –   | 9.0  |
| pH category (PHCA)                                  | Alkaliphile (optimum >8.5)  |  |
| Lowest NaCl concentration for growth (SALL)         | –   | 2.5  |
| Highest NaCl concentration for growth (SALH)        | –   | 4.8  |
| Optimum salt concentration for growth (SALO)        | –   | 4.0  |
| Other salts important for growth                    | Sodium carbonates   |  |
| Salinity category (SALC)                            | Extreme halophilic (optimum 4 M Na <sup>+</sup> )                                       |  |
| Relation to oxygene (OREL)                          | Aerobe  |  |
| O <sub>2</sub> conditions for strain testing (OCON) | Aerobic   |  |
| Carbon source used (class) (CSUC)                   | Carbohydrates   |  |
| Specific compounds (CSUC)                           | Cellulose, xylan, mannan, cellobiose, maltose   |  |
| Nitrogen source (NSOU)                              | Ammonium  |  |
| Terminal electron acceptor (ELAC)                   | O <sub>2</sub>  |  |
| Energy metabolism (EMET)                            | Chemoorganotrophic  |  |
| Phospholipids (PHOS)                                | Core membrane lipids are archaeol (C20–C20 DGE) and C20–C25 DGE in equal proportion     | Phosphatidylglycerophosphate methyl ester (PGP-Me), phosphatidylglycerol (PG), phosphatidylglycerol sulfate (PGS) and phosphatidylglycerophosphate (PGP)                             |
| Glycolipids (GLYC)                                  | –   | Phosphatidylglycose (GL-PG), diglycosyl (2GL)  |
| Habitat (HABT)                                      | Hypersaline alkaline lakes  |  |
| Extraordinary features (EXTR)                       | Growth with native insoluble cellulose  | Fast growth with insoluble native celluloses; more than 30 GH glucosyl-hydrolases genes in the genome  |

(–) not specific for the genus.

1. The species name “cellulotropha” was corrected to “cellulositropha” in the (SPNA), (SPEP) and TITL lines.
2. The author name “Damstéd” in the (AUT) was corrected to “Damsté”.
3. The word “neutral” in the (GETY/SPTY) was corrected to “neut”.
4. Some of the relevant values have been added to both genus and species columns.