Proposal to designate *Methylothermus subterraneus* Hirayama *et al.* 2011 as the type species of the genus *Methylothermus*. Request for an Opinion

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Abstract

*Methylothermus thermalis*, the designated type species of the genus *Methylothermus*, is not available from culture collections and its nomenclatural type is a patent strain. According to Rule 20a of the *International Code of Nomenclature of Prokaryotes* only species whose names are legitimate may serve as types of genera. Therefore the name *Methylothermus* and the names of the species *Methylothermus thermalis* and *Methylothermus subterraneus* are not validly published and are illegitimate. We therefore submit a *Request for an Opinion* to the Judicial Commission of the ICSP to consider the later named *Methylothermus subterraneus* as the new type species of the genus *Methylothermus* based on Rule 20e(2).

Keywords: *Methylothermus*; type species; Request for an Opinion
Rule 20a of the *International Code of Nomenclature of Prokaryotes* (ICNP) [1] states that only species whose names are legitimate may serve as types of genera. Therefore *Methylothermus thermalis*, the first described species of the genus *Methylothermus* [2], cannot serve as the type species of the genus. Strain MYHT\(^T\), the designated type strain of *M. thermalis*, is not available from any culture collection: IPOD FERM P-19714 is a patent deposit. The strain was also deposited as VKM B-2345, but it cannot be obtained from the VKM culture collection. Therefore the name *Methylothermus thermalis* is illegitimate, and so are the genus name *Methylothermus* Tsubota *et al.* 2005 (see also [http://www.bacterio.net/methylothermus.html](http://www.bacterio.net/methylothermus.html)) and the species name *Methylothermus subterraneus* [3].

When a generic name for which no identifiable type species can be selected in accordance with the Rules might have come into use for identifiable species which were subsequently named, one of these later species may be selected as the type species according to Rule 20e(2), and established as the new type by an *Opinion* of the Judicial Commission. Based on that same Rule, the generic name is then ascribed to the author of the name of the species selected as the type species. We therefore submit a *Request for an Opinion* to the Judicial Commission of the ICSP to consider the later named *Methylothermus subterraneus* Hirayama *et al.* 2011 with type strain HTM55\(^T\) (= DSM 19750\(^T\) = JCM 13664\(^T\)) as the new type species of the genus *Methylothermus* Hirayama, *et al.* 2011 [3].

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**Ethical statement** – No experiments with humans or animals were carried out.
References

