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ORIGINAL PAPER

Phylogenomics-based reclassifications in the genus *Psychrobacter* including emended descriptions of *Psychrobacter pacificensis*, *Psychrobacter proteolyticus* and *Psychrobacter submarinus*

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Abstract The taxonomic status of 43 *Psychrobacter* species was examined based upon the genome sequences of their type strains. Three groups of type strains were found to be conspecific, *Psychrobacter salsus* Shivaji et al. (Syst Appl Microbiol 27:628–635, 2004. 10.1078/0723202042369956) and *Psychrobacter submarinus* Romanenko et al. (Int J Syst Evol Microbiol 52:1291–1297, 2002. 10.1099/00207713-52-4-1291); *Psychrobacter oceani* Matsuyama et al. (Int J Syst Evol Microbiol 65:1450–1455, 2015. 10.1099/ijs.0.000118) and *Psychrobacter pacificensis* Maruyama et al. (Int J Syst Evol Microbiol 50:835–846, 2000. 10.1099/00207713-50-2-835); and *Psychrobacter proteolyticus* Denner et al. (Syst Appl Microbiol 24:44–53, 2001. 10.1078/0723-2020-00006), *Psychrobacter marincola* Romanenko et al. (Int J Syst Evol Microbiol 52:1291–1297, 2002. 10.1099/00207713-52-4-1291) and *Psychrobacter adeliensis* Shivaji et al. (Syst Appl Microbiol 27:628–635, 2004. 10.1078/0723202042369956). For all three groups, the average nucleotide identity (ANI) and digital DNA–DNA hybridization (dDDH) values are > 97.69% and > 80.2%, respectively. This conclusion is supported by similarities in morphology, growth properties, and fatty acid compositions. Based on this evidence, we propose the reclassification of *Psychrobacter salsus* Shivaji

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