

Primers and PCR programs used for amplification of four DNA fragments sequenced in the study

Electronic supplementary material 1 to the article:

Tsvetkova A.Yu. & Tumanov D.V. 2024. *Tenuibiotus yeliseii* sp. nov., a new species of Macrobiotidae (Tardigrada: Eutardigrada) from Svalbard, Norway, with discussion of taxonomic criteria within the genus and its phylogeny. *Zoosystematica Rossica*, **33**(1): 28–47.

DNA fragment	Primer name	Primer direction	Primer sequence (5'–3')	Primer source	PCR programme
COI	LCO1490	forward	GGTCAACAAATCATAAAGATATTGG	Folmer et al. (1994)	Michalczyk et al. (2012)
	HCO2198	reverse	TAAACTTCAGGGTGACCAAAAAAT-CA		
	LCO1490-JJ	forward	CHACWAAYCATAAAGATATYGG	Astrin & Stüben (2008)	
	HCO2198-JJ	reverse	AWACTTCVGGRTGVCCAAARAATCA		
18S rRNA	18S_Tar_Ff1	forward	AGGCGAAACCGCGAATGGCTC	Stec et al. (2017)	Zeller (2010), in Stec et al. (2015)
	18S_Tar_Rr1	reverse	GCCGCAGGCTCCACTCCTGG		
28S rRNA	28S_Eutar_F	forward	ACCCGCTGAACTTAAGCATAT	Gąsiorek et al. (2018) Mironov et al. (2012)	Mironov et al. (2012)
	28S_R0990	reverse	CCTTGGTCCGTGTTTCAAGAC		
ITS-2	ITS2_Eu-tar_Ff	forward	CGTAACGTGAATTGCAGGAC	Stec et al. (2018)	Stec et al. (2018)
	ITS2_Eu-tar_Rr	reverse	TGATATGCTTAAGTTCAGCGG		

References

- Astrin J. & Stüben P. 2008. Phylogeny in cryptic weevils: Molecules, morphology and new genera of western Palaearctic Cryptorhynchinae (Coleoptera: Curculionidae). *Invertebrate Systematics*, **22**(5): 503–522. <https://doi.org/10.1071/IS07057>
- Folmer O., Black M., Hoeh W., Lutz R. & Vrijenhoek R. 1994. DNA primers for amplification of mitochondrial cytochrome c oxidase subunit I from diverse metazoan invertebrates. *Molecular marine Biology and Biotechnology*, **3**: 294–299.
- Gąsiorek P., Stec D., Zawierucha K., Kristensen R.M. & Michalczyk Ł. 2018. Revision of Testechiniscus Kristensen, 1987 (Heterotardigrada: Echiniscidae) refutes the polar-temperate distribution of the genus. *Zootaxa*, **4472**: 261–297. <https://doi.org/10.11646/zootaxa.4472.2.3>

- Michalczyk Ł., Wełnicz W., Frohme M. & Kaczmarek Ł.** 2012. Redescriptions of three Milnesium Doyère, 1840 taxa (Tardigrada: Eutardigrada: Milnesiidae), including the nominal species for the genus. *Zootaxa*, **3154**: 1–20. <https://doi.org/10.11646/zootaxa.3154.1.1>
- Mironov S.V., Dabert J. & Dabert M.** 2012. A new feather mite species of the genus Proctophyllodes Robin, 1877 (Astigmata: Proctophyllodidae) from the Long-tailed Tit *Aegithalos caudatus* (Passeriformes: Aegithalidae) – morphological description with DNA barcode data. *Zootaxa*, **3253**: 54–61. <https://doi.org/10.11646/zootaxa.3253.1.2>
- Stec D., Morek W., Gąsiorek P. & Michalczyk Ł.** 2018. Unmasking hidden species diversity within the *Ramazzottius oberhaeuseri* complex, with an integrative redescription of the nominal species for the family Ramazzottiidae (Tardigrada: Eutardigrada: Parachela). *Systematics and Biodiversity*, **16**: 357–376. <https://doi.org/10.1080/14772000.2018.1424267>
- Stec D., Smolak R., Kaczmarek Ł., & Michalczyk Ł.** 2015. An integrative description of *Macrobiotus paulinae* sp. nov. (Tardigrada: Eutardigrada: Macrobiotidae: hufelandi group) from Kenya. *Zootaxa*, **4052**: 501–526. <https://doi.org/10.11646/zootaxa.4052.5.1>
- Stec D., Zawierucha K. & Michalczyk Ł.** 2017. An integrative description of *Ramazzottius subanomalus* (Biserov, 1985) (Tardigrada) from Poland. *Zootaxa*, **4300**: 403–420. <https://doi.org/10.11646/zootaxa.4300.3.4>