Dear Editor!

We are submitting a research article “Blue mussels Mytilus edulis L. and M. trossulus Gould in sympatry: assessment of ecological niche divergence using species distribution modeling” for your consideration for publication in MEPS.

Twenty years ago we learned that in the White Sea, in addition to the common mussel Mytilus edulis, there is another “cryptic” species, M. trossulus (Väinölä & Strelkov 2011). At that moment of time M. trossulus was perceived by ecologists as a virtual entity understood only by geneticists. We tried to sort out this issue, and proved that ME and MT are distinguishable entities genetically, morphologically, and ecologically (Katolikova et al. 2016). On the latter point, however, gaps remained, and the local scale mosaic in species distribution remained largely unexplained. In the present study, we fill this gap using the Species Distribution Modelling approach, which involves simultaneously incorporating many environmental predictors potentially governing species distributions into a single statistical model.

We believe that our analysis, based on extensive field collections, has identified the most important environmental factors regulating the distribution of the two mussel species in sympatry. Since cryptic species are widely distributed at sea, and M. edulis and M. trossulus coexist in many areas of the North Atlantic, we hope that our study will be of interest to a wide range of readers of your journal.

VK conceived the study. VK and PS wrote the manuscript. All authors contributed to sampling and data analyses. All authors approved the submitted version of the manuscript and agreed to be listed. This manuscript or parts of it have not been published and are not under consideration anywhere. We have no conflicts of interest to disclose.

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