Dear Editor,

Please find enclosed our manuscript entitled "An experimental protocol to estimate sediment denitrification rates using cores and N2O microsensors” that we would like to be considered for publication in JoVE. This paper highlights a protocol for estimating sediment denitrification rates using sediment cores, the acetylene inhibition technique and measuring the accumulated N2O with microsensors. We consider of value publishing these data in JoVE, as we explains how to collect the cores, calibrate the sensors, perform the acetylene inhibition, measure the N2O accumulation, and calculate the denitrification rate. The techniques presented in this paper will be highly useful for researchers working in the field of global change, biogeochemistry, limnology, water chemistry and nutrient cycling.

CPL, LC and JC designed the procedures described in the manuscript. CPL performed the experiments and analyzed the data. Finally, CPL and JC wrote the manuscript.

During the preparation and submission of this manuscript, we have been kindly assisted by

Lyndsay Troyer.

Thank you for your consideration of this manuscript. We look forward to hearing from you.

Sincerely yours,

Carlos Palacin-Lizarbe

Lluís Camarero

Jordi Catalan