

Interactive comment on “Thickness of marine Holocene sediment in the Gulf of Trieste (Northern Adriatic Sea)” by Ana Trobec et al.

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This paper will be useful for paleoecological and paleoclimatic inferences based on sediment cores in the northern Adriatic Sea. Two recently published estimates of sedimentation rates and constraints on the thickness of Holocene deposits from the Gulf of Trieste can be added into the database used in this manuscript - one location is from Bay of Panzano where a 1.5 m-thick core spans ~500 years (Tomasovych et al. 2017) and another location is about 1 km NW of Piran where a 1.5 m-long core spans ~10,000 years (oldest shell ages in the lowermost part of the core) (Mautner et al. 2018). This second location is probably within the transect in the figure 8E. This core has a marked, ~30 cm-thick oyster-*Arca*-rich shell bed covered by 8 cm of bioclastic sand on the top - it is probable that although this site was affected by sediment

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starvation/winnowing/bypassing, it was probably not affected by large-scale erosion. It would be useful to know what type of sediments occurs in the center of Cape Madona depression that is shown in 8E. What is the evidence that this depression is erosional and what mechanism can be responsible?

Mautner, A.K., Gallmetzer, I., Haselmair, A., Schnedl, S.M., Tomasovych, A. and Zuschin, M., 2018. Holocene ecosystem shifts and human-induced loss of *Arca* and *Ostrea* shell beds in the north-eastern Adriatic Sea. *Marine Pollution Bulletin*, 126, pp. 19-30. Tomasovych, A., Gallmetzer, I., Haselmair, A., Kaufman, D.S., Vidović, J. and Zuschin, M., 2017. Stratigraphic unmixing reveals repeated hypoxia events over the past 500 yr in the northern Adriatic Sea. *Geology*, 45, pp. 363-366.

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