

Hydrol. Earth Syst. Sci. Discuss., referee comment RC1
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Comment on hess-2021-590

Anonymous Referee #1

Referee comment on "Pan evaporation is increased by submerged macrophytes" by
Brigitta Simon-Gáspár et al., Hydrol. Earth Syst. Sci. Discuss.,
<https://doi.org/10.5194/hess-2021-590-RC1>, 2021

1. The manuscript describes an interesting phenomenon -- but doesn't explore plausible explanations. One may expect that the water temperature in the Class A pan is influenced by sediment at the bottom of the pan, and by having waterplants that limit water circulation. The temperature at the water surface will influence evaporation. Even measurements of surface water temperature for a relatively short period could help quantify such effects. One expects the temperature differential to be highest under full-sun conditions and lowest with an overcast sky. So plotting the temperature differential to environmental conditions could give some indication of the mechanism involved.

2. The statistical toolbox used is rich -- but one wonders how replicable results might be under conditions beyond those of the experiment if there is no mechanistic understanding of the process. The 'machine learning' methods are deemed successful in 'fitting', but results are not presented in a way that allows others to use them in new settings.

Minor:

sipctatum ==> spicatum