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Comment on hess-2021-118

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Community comment on "Rainbow color map distorts and misleads research in hydrology – guidance for better visualizations and science communication" by Michael Stoelzle and Lina Stein, Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-118-CC1>, 2021

As a person belonging to the 5% minority with color-vision deficiency (CVD), I clearly recognize many of the issues addressed by Stoelzle and Stein, and I highly appreciate that the authors put focus on use of rainbow colors and colors where red and green are difficult to distinguish. Both in papers and particularly at presentations, where time to study colors is limited, I have over the years had great difficulties reading figures when they have been prepared with colors such as rainbow (upper panel of Figure 1) or graphs such as the "Original" in Figure 6. I have therefore always preferred use of black/white/grey instead of colors, which was relatively easy to argue for in the old days before color printers became common, but I acknowledge that the world today has moved beyond black/white figures.

As it is clear from the paper that it is relatively easy to choose colors and figure layouts that do not pose problems to the CVD minority and still ensure efficient visualization and communication, I am convinced that all scientists would like to do so, if there were aware of the problem. Given the knowledge that apparently exist on how easily to overcome the problem on the one side and the total lack of progress on the other side, there appears, however, to be a lack of attention in the scientific community.

I therefore hope that the message in this paper will be spread across the scientific community, so that many of the useful practical suggestions presented in Section 3 will be adopted by future authors. In my view scientific journals/publishers have an important responsibility in promoting this – and a responsibility that goes beyond putting recommendations into author guidelines without checking compliance. I suggest that the authors consider making recommendations on the roles and responsibilities of the journals and publishers.