

Geosci. Model Dev. Discuss., author comment AC2
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Reply on RC2

Zuzanna M. Swirad and Adam P. Young

Author comment on "CliffDelineaTool v1.2.0: an algorithm for identifying coastal cliff base and top positions" by Zuzanna M. Swirad and Adam P. Young, Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2021-269-AC2>, 2021

We are very grateful to the reviewer for taking time to run the code and evaluate the results on an independent data set. We are encouraged that the model gave good results using default settings without local calibration despite the different morphology.

* I have some minor suggestions about the code: As suggested, we have modified the code following reviewer's comments. The code has a new release (v1.2.0) and manuscript title has been updated. Making the code a function script would make it slightly faster to embed the tool in the workflow by other researchers.

As suggested, we converted the code to a function.

* In line 37, use "display" function

Modified as suggested (code line 39).

* In line 39, showing "table" is not needed as it will be always empty here;

Removed as suggested.

* It would be good to add a header to the output file, so it is immediately known what the columns contain; also, it would make it easier to load in software other than ArcMap, e.g. QGIS.

As suggested, we have added the option to save the files with column names (code lines 358-369 for cliff base and 392-403 for cliff top).

* Further, it would be much more convenient if the script could read XY coordinates of those (if included in the attribute table – could be an optional parameter) and save the output with those, so it can be directly viewed in GIS without the need to merge it with the shapefile every time.

We have modified the code so that transect point attributes such as X, Y coordinates included in the original input file can be maintained through the tool and saved in output files (code lines 342-353 and 376-387).

* As a future development, that I think is beyond the scope of this paper, I would suggest to: Create a Python script that would contain the pre-processing routine of ArcMap. All except defining the seaward and landward limits as polylines can be rendered in Python. Further, use geopandas in such a script to export the attribute table and then post-process the Matlab output directly into a shapefile.

Thank you for the suggestions. The code is now available in Python. Future versions and codes to automate pre- and post-processing will be available on GitHub.

* I'm looking forward to the authors' revision of the paper and code.