

## ***Interactive comment on “Influence of Hydrometeorological Hazards and Sea Coast Morphodynamics onto Unique Coastal Vegetation Sites Development – *Cephalanthero rubrae* – Fagetum on Wolin Island (the Southern Baltic Sea)” by Jacek Tylkowski et al.***

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Received and published: 15 October 2020

- in the Methods section, formulas for climate indicators will be added and threshold values for *Fagus Silvatica* will be described. De Martonne Aridity Index:  $IA=P/(T+10)$  (De Martonne 1926), where P the amount of the annual precipitation, T average annual temperature.  $IA<30$ = silvosteppe,  $30<IA<45$  climate favourable for the forest, with an optimal for beech in the range 35-40 (Satmari, 2010). De Martonne Aridity Index

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- classification Tabari et al., 2014:  $IA<5$  extremely arid  $5<IA<10$  arid  $10<IA<20$  semi-arid  $20<IA<24$  mediterranean  $24<IA<28$  semi-humid  $28<IA<35$  humid  $35<IA<55$  very humid  $55<IA$  extremely humid. Ellenberg Quotient Index:  $EQ=Tw/P \times 1000$  (Ellenberg 1988) where Tw represents the temperature of the warmest month of the year, P annual precipitations (Stojanovic et al., 2013). Ellenberg (1988) has set a threshold of beech favourability for EQ values lower than 30, and at EQ values that are higher than 40, the beech disappearance occurs. Forestry Aridity Index:  $FAI=100 \times (TVII-VIII)/(PV-VII+PVII-VIII)$  where TVII-VIII is the average temperature of the months July and August, PV-VII represents the amount of precipitations during May-July and PVII-VIII is the amount of precipitations during July-August (Führer et al. 2011). Mayr Tetratherm Index:  $MT=(TV+TVI+TVII+TVIII)/4$  where tV-tVIII represent the mean temperature for the May-August period. - A sentence will be completed in the summary (a few words in bracket in line 20-21): It has been established that in the 21st century, a relatively larger hazard to the functioning of the researched site are climate changes (ie mostly changes in thermal conditions and precipitation conditions) not the sea coast erosion.

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-160>, 2020.

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