

Interactive comment on “A satellite-derived database for stand-replacing windthrows in boreal forests of the European Russia in 1986–2017” by Andrey N. Shikhov et al.

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Main Points

1. Language needs some help. I would recommend the paper being checked by a native English paper because in some places the meaning was not totally clear. 2. Unlike the earlier reviewer I was really impressed at how much effort was put into assessing the potential errors in the assessment. I also think the authors were completely honest about limitations in the data and their assessments. Such honesty will give really help users of the data.

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Minor Points 1. I would recommend referencing the paper Ulanova, N.G., 2000. The effects of windthrow on forests at different spatial scales: a review. For. Ecol. Manage. 135, 155–167. [https://doi.org/10.1016/S0378-1127\(00\)00307-8](https://doi.org/10.1016/S0378-1127(00)00307-8) This paper deals with the effects of wind in the Russian boreal forest. It is a brilliant and seminal paper. 2. "windthrow" not "windthrows" throughout. Plurals in English can be difficult. 3. I think early on you need to tell the reader that your analysis was done manually and not automated. That is important to understand the process. Also refer whenever possible to Fig. 2 which is super useful. 4. Page 6. I think some more justification of the limits you set would be helpful, for example the lower limits on size of EDAs. 5. Page 7. What did you do in highly populated areas? Did you just accept that you will have missed wind damage on some occasions? 6. Page 7, line 212. Use "represent" not "hold". 7. Page 8, line 222. Again justify the figure of 5-10 km. Do you use "rules" or is this judgement left to the observer? 8. Page 9, line 261. I think "predominately" is better than "prevalently". 9. Page 11, line 346. I think the symbol should be \sim rather than $<$. 10. Page 13, line 367. When you say "less than 13%" what are you referring to? 13% of what? 11. Page 13, line 392. But trees could break. You don't manage wind break at all in your paper. 12. Page 13, line 398. Please define "parallel" and "successive". 13. Page 14, line 417. What do you mean by dark-coniferous? What species are you referring to? 14. Page 14, line 430. Too coarse for what? Correlation? With what? 15. Page 15, line 461. Write out local time not LT. 16. Page 490. Reference work in USA and Amazon on damage from derechos or squall lines. See a) Negrón-Juárez, R.I., Chambers, J.Q., Guimaraes, G., Zeng, H., Raupp, C.F.M., Marra, D.M., Ribeiro, G.H.P.M., Saatchi, S.S., Nelson, B.W., Higuchi, N., 2010. Widespread Amazon forest tree mortality from a single cross-basin squall line event. Geophys. Res. Lett. 37, 1–5. <https://doi.org/10.1029/2010GL043733> and b) Peterson, C. J., 2000: Catastrophic wind damage to North American forests and the potential impact of climate change. Sci. Total Environ., 262, 287–311. 17.

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