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# Relating Forest Damage Data to the Wind Field from high Resolution RCM Simulations: Case Study of Anatol passing Sweden in December 1999

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The winter storm Anatol struck Denmark and Sweden during the period December 3-4, 1999. This strong system, that struck southern Sweden during the late evening of December $3^{rd}$, is characterised by a low pressure system that deepened in the North Sea ($<$ 955 hPa) and strong surface winds. Damage in southern Swedish forests amounted to more than 5 million cubic metre timber. The Canadian Regional Climate Model, in which a windgust parameterisation has been implemented, is used to investigate the surface wind field intensity and distributions in relation to forest damage for the provinces of Scania and Blekinge in southern Sweden. In this methodology, the model's boundary conditions are provided by the NCEP-NCAR reanalysis data and a multiple self-nesting procedure allow windstorms to be studied at resolution as high as 2-km. Preliminary analysis shows that in the southern and northwestern part of Scania simulated patterns of strong wind speeds coincided well with patterns of recorded storm damage. The area of maximum simulated wind speed field was centred in the northeast of Scania. Work is currently underway to improve the quality of the downscaling procedure and to get the necessary data to complete this analysis study.