Lietišķie pētījumi vides zinātnē/ Lietišķie pētījumi vides zinātnē / Applied research in environmental science



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Extreme wind-driven hailstorm in Latvia: reasons for formation, impacts and its high damage potential

Content

On 7th of August 2023, an extraordinary severe weather outbreak occurred across the Baltic countries, producing hail of record-breaking size in all three countries. Hail up to 8 cm was observed in Estonia and Latvia and up to 9 cm in Lithuania. The longest hail swath measured more than 300 km and along a large part of it, hail was driven by severe wind gusts, reaching up to 32.6 m/s. The storm caused extreme damage despite affecting mostly rural areas. This necessitates a further study of its impacts and processes leading up to the storm to increase the preparedness for such events, especially should they strike major metropolitan area, such as Rīga in the future. We show that such scenario was possible during the case and such a storm could lead to hundreds of injuries and damage in hundreds of millions to billions of Euros.

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