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Soil respiration in a wind-damaged Norway spruce forest

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Disturbance alters the micro climate in forest stands. We have monitored the soil respiration in two adjacent mountain forests. One plot is covered by a dense mature forest, the structure of the disturbed forest is gradually opening since several years due to storm damage. We established a carbon budget for both sites and modelled the carbon dynamics using the simulation model Yasso07. Presently, the difference between the two sites with respect to CO2 release from the soil is small. Nevertheless, the decline of the carbon stock due to the loss of biomass is already evident. Future storms will lead to a continued decline in stand stability. Our
measurements of one year will serve as reference data.