Long-term 222Rn concentrations and their relationships to different geological subsurface structures in nine selected study areas in Northern Germany

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As part of the ANGUS II project nine study areas were selected based on different geological settings for high-resolution LIDAR analysis, soil gas measurements and soil sampling. The areas to be examined include Lake Plön area (tectonic faults and salt rise), Bad Segeberg (gypsum dome), Eckernförde (tectonic faults and salt rise at marine - terrestrial contact area), Wahlstorf (influence of bioturbation on soil gas activity), Lanker See (thermal water outlet), Garding (deep rim syncline and salt rise), Peissen (subrosion depression), Husberg (numerous tectonic faults and salt rise), Lägerdorf (tectonic faults, salt rise and karst structures of Upper Cretaceous age). Additionally long-term measurements of 222Rn in Wahlstorf were constructed and compared to environmental parameters such as temperature, air pressure, precipitation, humidity, wind speed and sea levels of North- and Baltic Sea. First results indicate a correlation between radon concentration and primarily air pressure, as well as sea level fluctuations.