



WaterPUCK: A new approach for investigating the impact of pesticides and nutrient flux from agricultural holdings and land-use structures on the coastal waters of the Baltic Sea

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General concept of a new method as ‘Integrated information and prediction Web Service WaterPUCK’ for investigation influence of agricultural holdings and land-use structures on coastal waters of the southern Baltic Sea is presented. WaterPUCK Service is focused on determination of the current and future environmental status of the surface water and groundwater located in the Puck District (Poland) and its impact on the Bay of Puck (the southern Baltic Sea) environment. It will highly desired tool for land-use and environment management. WaterPUCK combines several different components and methods such as retrospective analyses of existing monitoring data sets, in situ measures and the application of various models to estimate main mechanisms and threats responsible for the pollution transport from the agricultural holdings and land-use structure to the surface and groundwater and potential predictability of environment change of the Puck District and the Bay of Puck ecosystem. WaterPUCK Service will integrate several models, such as a surface water model based on SWAT, a groundwater flow model based on MODFLOW, a 3D-ecohydrodynamic model of the Bay of Puck called EcoPuckBay and an agriculture calculator called CalcGosPuck. The WaterPUCK Service is constructed as part of the project with the same name ‘WaterPUCK’.

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