ReSurveyEurope

Project Metadata Form

When contributing data to ReSurveyEurope, please fill in this form for each resurvey project and send it to Ilona Knollová (ikuzel@sci.muni.cz) together with the database. A resurvey project is understood as repeated sampling of a certain type of vegetation in a certain study area using specific methods.

- PROJECT NAME (identical with the Resurvey Project name given in the database):

  ReSurvey_EU_PL_SPN

- FULL PROJECT NAME (use if the full project name is longer than used in the database):

  ReSurvey_Europe_Poland_Słowiński National Park

- REFERENCE (publication or URL or DOI of the dataset if published online):

  https://doi.org/10.3832/ifor2203-012

- DATA OWNER: person(s), institution(s):

  Aldona K. Uziębło, University of Silesia

- CONTACT E-MAIL:

  aldona.uzieblo@us.edu.pl

- METHODS (description of sampling design and methods):

  The area is located on the gentle slopes (10°) of fixed dunes and SW exposure to the Baltic coast at an altitude of 5 m a.s.l. The tree stand is composed of 100-year-old pine trees that were planted in phytocoenosis of the *Empetro nigri-Pinetum.* The coverage of vascular plant species was estimated in all layers of permanent plots in 100 squares that had an area of 25m^2 of the phytocoenosis. The assessment was made according to the following scale: 1%, 5%, 10%, 20% up to 100%. The observations were made in **2001, 2006, 2011 and 2018**. They will be continued until 2023 to capture long-term changes in vegetation structure.

- ENVIRONMENTAL DATA (list of environmental data measured):

  To assess the load of nitrogen and sulfur reaching the forest soil concentrations of these elements collected from throughfall **only to 2011**. Throughfall was collected every month using ten five-liter polyethylene bottles per plot with 14.5 cm diameter funnels, which were replaced with 21 cm diameter polyethylene snow sleeve collectors in the winter time. The soil solution was collected using six ceramic cup lysimeters installed at the depth of 25 and 50 cm and sampling was carried out monthly in the spring and summer. Mixed samples of throughfall and soil solutions collected every month were taken for analyses. The ion chromatographic method was used to determine SO$_4^{2-}$ and

NO$_3^-$ concentrations in water (Dionex DX100, Ion-Pac AS4A column). The concentration of NH4$^+$ in the water samples was determined using the Nessler method.

To calculate the annual loads of sulfur and nitrogen for each particular year the monthly concentrations of SO$_4^{2-}$, NO$_3^-$ and NH$_4^+$ were multiplied by the amount of throughfall and the obtained values were added.

- MANIPULATED PLOTS (description of the treatment if the plots were manipulated, e.g. mowing twice a year, fertilizing by NPK once a year, post-fire succession)

[place, date] Katowice, 9.2.2023

[owner´s name] Aldona K. Uziębło