

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):

IT_Western_Alps_Mires

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

Resurvey of Western Alpine Sphagnum-dominated Mires in Italy

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

<https://doi.org/10.1111/avsc.70057>

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

Alessandra Pollo, University of Turin

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- METHODS (description of sampling design and methods):

The resurvey was conducted in 2023 (from here on 'T1') and was based on two historical surveys (from here on 'T0') conducted by the University of Torino (Miserere et al. 2003) and Arpa Piemonte (Programme INTERREG Italy-Switzerland 2007–2013, 'Progetto Biodiversità: una ricchezza da conservare'; Pompilio et al. 2012) in 1998 and 2011, respectively. The original surveys were conducted by two botanists: in 1998 by Luca Miserere and Giorgio Buffa and in 2011 by Giorgio Buffa. Both botanists also led the resurveys in 2023. The 1998 survey established quasi-permanent plots (IT_0015a), whereas the 2011 survey established permanent plots (IT_0015b).

From the 1998 dataset, we selected 70 plots for the resurvey across 12 sites. Priority in plot selection was given to those plots with the highest probability of accurate relocation (e.g., detailed description of location). From the 2011 dataset, we selected 69 plots across two sites. In total, vegetation was resurveyed in 139 plots of *Sphagnum*-dominated mire. All vascular plants and *Sphagnum* species were recorded, and their cover was estimated with a six-grade scale according to Braun-Blanquet (1932), consistently with the historical surveys. The vegetation was sampled in plots of the same historical plot area (minimum area: 0.5 m²; maximum area: 1.5 m²). Vascular plant species were identified in situ. Uncertain vascular species

and *Sphagnum* taxa have been identified in the lab. All other bryophytes were not considered, as they were lacking in part of the historical data. Regarding the observer bias, the same historical botanists who surveyed the vegetation in 1998 and 2011 resurveyed in 2023. Observer bias is further reduced by the small size of the plots (approximately 1 m²) and the consistent application of Braun-Blanquet cover-abundance classes across both past and present surveys. This approach minimises the observer's influence on both species' identification and cover estimation. To be consistent with the historical survey, *Sphagnum magellanicum* Brid. was not split into the recently described species (Hassel et al. 2018). Finally, the relocation error was absent for permanent plots thanks to fixed wooden markers while the quasi-permanent plots were resurveyed as accurately as possible thanks to (i) historical descriptions of the plot location and pictures, (ii) field information of botanists who carried out the historical surveys and (iii) historical environmental data (i.e., exposure, slope and altitude). Based on these data, suitable locations for plot location were generally few within the relatively small, surveyed mires examined. When multiple spots fulfilled the defined criteria, the final plot location was selected based on the dominant vascular plant and bryophyte species.

- ENVIRONMENTAL DATA (list of environmental data measured):

Aspect, Slope, Altitude, superficial pH, conductivity, % free water

- 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)

NO

Torino, 02/02/2026

Alessandra Pollo