

THE MEADOW AFTER THE STORM: ORTHOPTERA IN THE OPEN SPACES CREATED BY VAIA STORM IN 2018 (ALPS, NORTHERN ITALY)

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Very few species of Orthoptera inhabit forest environments, living, at least for part of their lifespan, in the canopy. Some species live on the edges of forests, but the vast majority of European Orthoptera live in open, sunny spaces. What happens in the open spaces created when a large section of forest is felled by a storm or destroyed by fire? This is what the LIFE VAIA project is attempting to determine, especially regarding Apoidea Anthophila and Orthoptera, insects that are very different from each other, but which equally require open spaces rich in diverse vegetation capable of supporting them. The LIFE VAIA Project (Valuing Afforestation of damaged woods with Innovative Agroforestry), funded under the European Community's LIFE Programme 2014-2020, envisions the development of innovative intervention techniques for forest reconstruction, through which it is possible to promote the adaptation of forest vegetation to climate change. The highly innovative element of the project is the use of agroforestry as a solution to address, in the short and long term, the damage caused by extreme weather events, such as Storm Vaia, which hit various locations in the Alps in October 2018. The project included a series of monitoring campaigns in the first few years after the storm, to be repeated at the end of the project. Monitoring of Orthoptera and Apoidea Anthophila highlighted a rapid recolonization of these new open spaces, but with varying consistencies depending on the original position of the sites in relation to the grasslands.



Figure 1. One of the open spaces created by the Vaia storm on the Pinè plateau in Trentino Alto Adige (Italy)

Five pilot sites have been identified in three areas in the Italian Alps where Storm Vaia created vast open spaces: Altopiano di Pinè (Trentino Alto Adige), Altopiano dei Sette Comuni, and Altopiano del Cansiglio (Veneto). These sites are located at altitudes between 800 and 1,500 m. The first Orthoptera monitoring was carried out in 2023, five years after the storm, and the project foresees another in 2026. The first interesting data are presented, highlighting significant differences between the sites both in terms of the species recorded and the number of species and specimens.



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