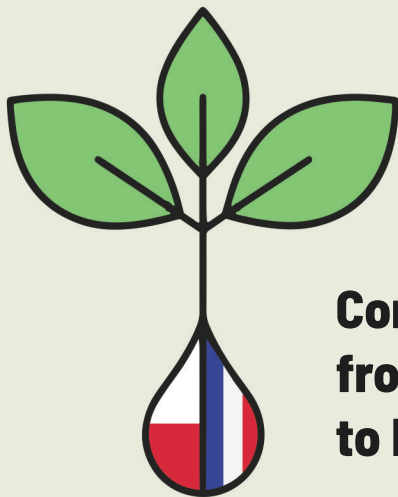




Conservation of forest genetic resources – from molecular basis of seed longevity to biodiversity preservation

OCTOBER 27, 2026

THE SCIENTIFIC CENTER OF THE POLISH ACADEMY OF SCIENCES IN PARIS, FRANCE

A scientific event organised by the Scientific Center of the Polish Academy of Sciences in Paris (France)
and the Institute of Dendrology, Polish Academy of Sciences (Poland)

The conservation of plant genetic resources, particularly those of forest trees, represents one of the key challenges of our time and forms the foundation of biodiversity protection. In an era of accelerating climate change, increasing frequency of extreme weather events, and continuing habitat loss, there is an urgent need to develop effective strategies that will safeguard the adaptive potential of ecosystems and ensure the long-term stability of plant populations. Seeds play a unique role in this process – they are the primary carriers of genetic information, the source of generational renewal, and the foundation for forest regeneration and ecosystem resilience. This event will focus on the latest research and practices related to seed longevity and preservation mechanisms in the context of global environmental challenges. Special attention will be given to the role of gene banks and seed storage strategies, which are crucial for maintaining biological diversity while also supporting reforestation initiatives and the adaptation of agriculture to changing conditions. The lectures aim to create space for interdisciplinary dialogue on the future of genetic resource conservation in Europe and to foster exchange of experience between Polish and French research teams. The meeting will provide an opportunity to identify future research directions and to outline practical measures for ensuring the long-term protection of biodiversity in a changing world.



09:00	Opening
09:00-09:30	Andrzej M. Jagodziński - Institute of Dendrology, Polish Academy of Sciences: two centuries of trees, decades of science
09:30-10:00	Czesław Koziół - Genetic aspects linked to static <i>ex situ</i> conservation, production and use of forest reproductive material
10:00-10:30	Christophe Bailly - Seed biology in a changing climate: challenges for seed quality and plant adaptation
10:30-10:50	Julia Zinsmeister - From chromatin to mitochondria: molecular determinants of seed longevity in <i>Arabidopsis</i> and rice
10:50-11:00	Discussion
11:00-11:30	Coffee break
11:30-12:00	Mélisande Blein-Nicolas - Proteomics as a cornerstone in deciphering the genotype-phenotype relationship
12:00-12:20	Tomasz A. Pawłowski - Mechanism of European beech adaptation to environmental conditions in the seed germination process
12:20-12:40	Hanna Fuchs - From quantity to quality: climatic drivers of European beech seed mass and viability
12:40-13:00	Mikołaj K. Wawrzyniak - From seeds to embryos: cryopreservation for the long-term storage of plant genetic resources
13:00-13:20	Ewa M. Kalembe - The same genus but different physiology – how orthodoxy and recalcitrance affect seed traits in <i>Acer</i> species
13:20-13:40	Chandrodhay Saccaram - Characterizing the seed spermosphere: fundamental insights into exudate-mediated seed-microbial interactions for sustainable crop protection
13:40-14:10	Discussion
14:30-15:30	Lunch