

# **„ Ex situ conservation of forest genetic resources in Jasenkovo and Govedartsi experimental stations“**

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## **Summary**

The study is based on provenance and half-sib trials of *Picea abies* (L) Karst. and *Pinus sylvestris* L. situated in Bulgaria. One experimental plantation being located within the natural range of Norway spruce near Govedartsi village in southwest Bulgaria at 1250 m a.s.l. and the other outside its natural range near the village of Jasenkovo in north-east Bulgaria at 450 m.a.s.l. The provenance trials were created in the 1970s and are over 40 years old which allows us to gain better understanding of the adaptability of the species and provenances tested there. The provenance and half-sib tests include 50 Norway spruce provenances from Bulgaria (Rhodopes, Rila, Pirin, Stara planina, Vitosha and Osogovo mountains), Romania, Slovakia, Poland, Belarus, Germany, Denmark and Sweden. The provenance trials with Scots pine include 32 provenances of which 29 from Bulgaria (Rhodopes, Rila and Pirin mountain) and three from Romania.

The aim is to make an assessment of the provenances and half-sibs based on survival and diameter growth, measure their adaptability and the possibility of ex situ conservation of their genetic resources in the experimental stations near Govedartsi and Jasenkovo.

All provenances and half-sibs show high within-population variation and low inter-population variability for survival and diameter growth.