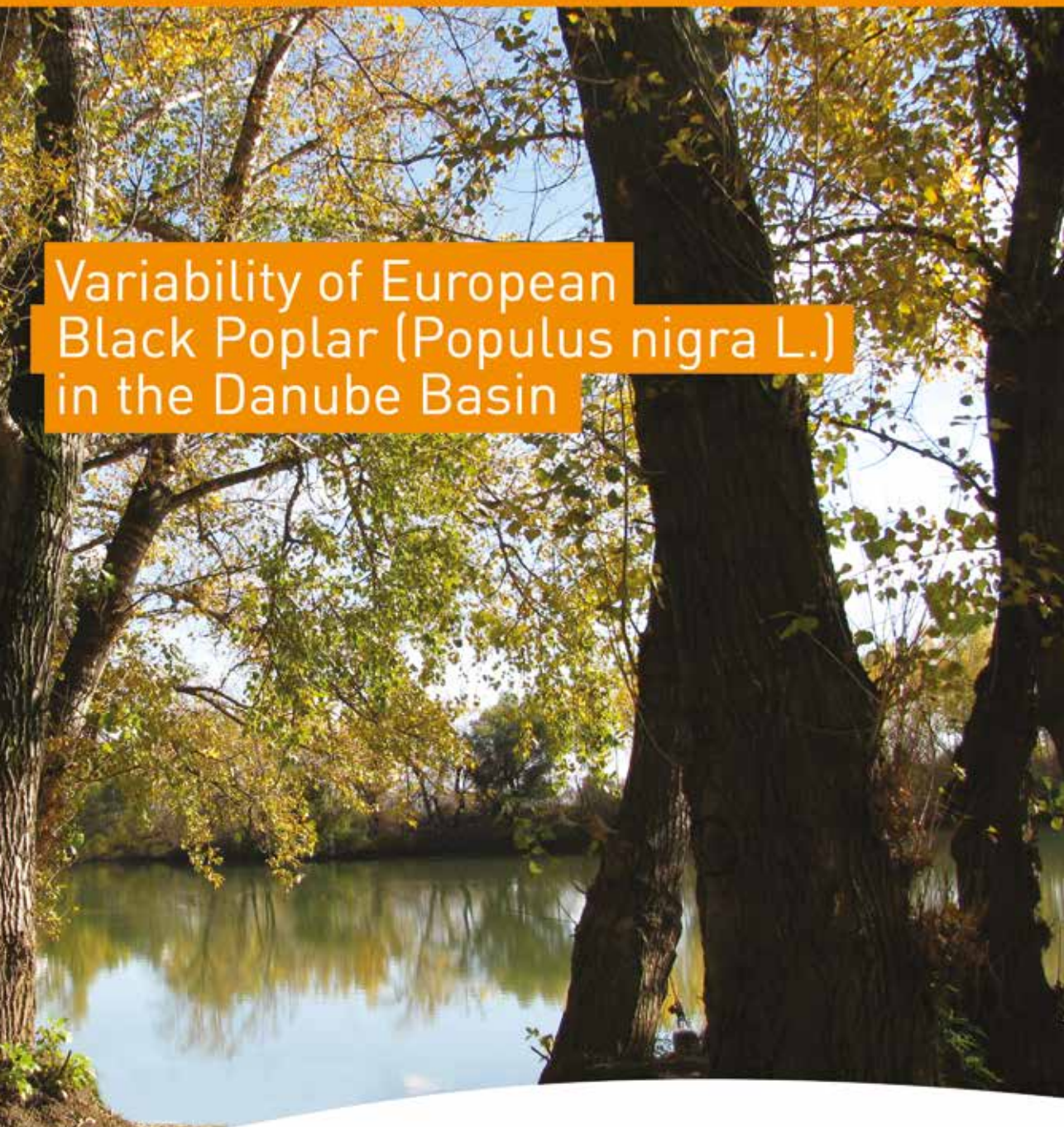


- 1 Danube Delta Biosphere Reserve
- 2 Lower Prut Nature Reserve
- 3 Lower Prut Floodplain Natural Park
- 4 Kálmok-Brushlao5 Protected Site
- 5 Ruzserski Lom Nature Park
- 6 Perșina Nature Park
- 7 Đerdap National Park
- 8 Leņjske Palje Nature Park
- 9 Kopački rit Nature Park
- 10 Gornje Podunavje Special Nature Reserve
- 11 Duna-Dráva National Park
- 12 Duna-İpoly National Park
- 13 Fertő-Hansag National Park
- 14 Dunajské Lúly Protected Landscape Area
- 15 Záhorie Protected Landscape Area
- 16 Donau-Auen National Park
- 17 Donausauwald Neuburg-Ingolstadt

Variability of European Black Poplar (*Populus nigra* L.) in the Danube Basin



DANUBE PARKS
network of protected areas



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FOREWORD

Due to habitat loss in last few decades the Black Poplar (*Populus nigra*) become an endangered tree species. It serves as indicator species for sustainable floodplain forest management.

DANUBEPARKS STEP 2.0 project ("Anchoring the Danube River Network of Protected Areas as Platform for Preservation of Danube Natural Heritage") aims to promote Black Poplar as flagship species. Implementation of conservation activities, within the project, for this species will contribute to improve forest habitat management practice but at the same time stressing the role of Danube Protected Areas for its preservation.

Public Enterprise "Vojvodinašume" within the mentioned project took very ambitious tasks to lead the activity entitled as "Black Poplar conservation". Having the most experience in this tree species PE "Vojvodinašume" additionally played an important role in bringing together protected areas with forestry agencies along the Danube. PE "Vojvodinašume" become an important bridge builder between various sectors and a key for the implementation of the "DANUBEPARKS Guidelines for Ecological Forestry in Danube Riparian Woodland" adopted as draft version in first DANUBEPARKS project.

As a leading partner for Black Poplar conservation, numerous results have been foreseen: Danube wide Black poplar cadastre which will give the insight in online database showing the distribution of the stands and individuals of Black Poplar in twelve project protected areas; Implementation of the concrete pilot conservation actions, including labeling of the most valuable and characteristic old single trees, promoting their protection together with forest companies, including them in public awareness campaigns etc; Danube wide genetic map e.g. genetic analysis of the Black poplar variability along the Danube; Promotion of the cultivation and propagation of these identified local genotypes in nurseries; International Danubeparks Conference on floodplain forest management; Implementation a pilot Black poplar reforestation.

This monograph presents the results of a survey of the European Black poplar (*Populus nigra* L.) genetic diversity status in the Danube and partly Sava region. Diversity surveys were conducted by analysis of molecular markers and morphological parameters. The main reason for conducting the survey of the existing Black poplar diversity was a need to have an overview diversity situation of this highly endangered species in very reduced natural populations.

With a special satisfaction we present this monograph which is result of extensive work of numerous scientists from Institute for biological research "Siniša Stanković" and Institute for lowland forestry and environmental protection. Monograph readers can have comprehensive insight in the analysis of the genetic and morphological variability of Black poplar populations in 12 protected areas in 8 countries. The results of the study will form the basis for the definition of long-term strategies for protection and conservation of the significant part of the gene pool of European Black poplar.

Also we want to thank to all monograph contributors: Nikolai Stoanov, Yancho Naidenov, Tsonka Hristova, Milko Belberov (on behalf of Directorate of Nature Park "Rusenski Lom"), Dr. Barbara Stammel, Daniel Neumaier, Eva Habichler, Jonas Liegl, Hubert Krenzler, Thomas Schneider (on behalf of administrative district Neuburg-Schrobenhausen and City of Ingolstadt), Darko Krsmanović, Levente Čapo, Robert Šafthauzen, Predrag Stanković, Rade Čortan, Đuro Ratković, (on behalf of Forest Estate "Sombor"), Valerija Hima, Dražen Ivaštinović, Dejan Sablić, Denis Stojsavljević, Ivan Grubišić (on behalf of Nature park „Lonjsko Polje”), dr. Sándor Bordács, dr. István Bach, Ferenc Várhídi, Péter Proksza, Attila Szokolai (on behalf of NP Duna Ipoly), Dr. Yancho Stoyanov Naydenov, Nikolay Yanchev Stoyanov, Hristofor Ivanov Georgiev, Stanimira Valentinova Shuleva, Svetoslava Zarkova Stoyanova (on behalf of Persina Nature Park), Sándor Kövesi, Attila Mórocz, Imre Dombi, Attila Kovács, Zoltán Hüber (on behalf of NP Duna-Drava), Pavol Surovec, Tomáš Kušík, Matúš Kúdela, Martina Maczalová, Lucia Senková (on behalf of BROZ), Dragomir Pfeifer, Zoran Šarac, Darko Cvijić, Vlatko Rožac, Davor Mikulić (on behalf of JUPP Kopački Rit), Karoline Zsak, Ronald Hillerbrand, Marina Gvozdenovic (on behalf of NP Doanu Auen), Dr. Borovics Attila, Benke Attila, Takács Roland, Toldi Valter and Tölgyesi Árpádné (on behalf of NP Ferto Hanság).

Monograph which is in front of you present solid ground for cooperation between two sectors: forestry and nature conservation and in the same time presents valuable literature for upcoming scientific researches. We are convinced that monograph will contribute to the education of the upcoming generations which will no matter on the professional education dedicate own work for the common goal – conservation and sustainable use of forests.

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